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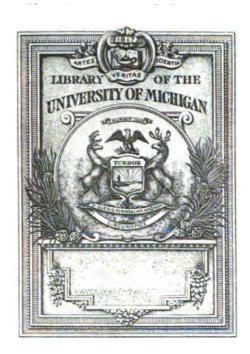
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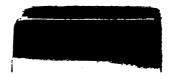
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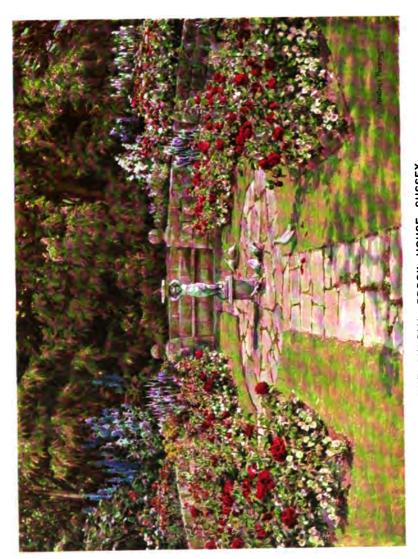
IN MY LADY'S GARDEN

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MRS' FREMMEND, PRIMS.

ALLED OF "FLOWER AND PRICE FOR THE HOME," MITHER I SEE GARDEN E-HIOR OF THE "QUEEN"

WITH TWO COLULTS ILLUSTRATIONS BY BUACRICE PARSONS AND THEY FIGHT CTHER PLATES

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IN MY LADY'S GARDEN

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MRS. RICHMOND, F.R.H.S.

AUTHOR OF "PLOWERS AND PRUIT FOR THE MOME," " THREE COURSES FOR THREEFENCE," ETC.

LATE GARDEN EDITOR OF THE "QUEEN"

WITH TWO COLOURED ILLUSTRATIONS BY BEATRICE PARSONS
AND FORTY-EIGHT OTHER PLATES

T. FISHER UNWIN

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PREFACE

THERE has ever been a halo of romance around my Lady's Garden.

Since the ancient days of chivalry, when brave knights and fair ladies paced in "pleached wayes" amidst gilliflowers and rosemary—throughout the centuries in which parterres were surrounded by ancient yews cut into many quaint devices—until the present time, women have not failed to love flowers, and to tend and cherish them as they knew how.

But the knowledge of horticulture has increased during the last quarter of a century with great rapidity, and with it the interest which we all now take in our gardens.

Moreover, the opening of China and Japan to the Western world, the construction of the Suez Canal, and the power of steam, have combined to enable us to bring safely from the ends of the earth many valuable plants which were quite unknown to our forefathers.

The gardens of the twentieth century, therefore, should be more beautiful than ever; and to those who love their flowers, and take a personal interest in them, this book is offered.

I. L. R.



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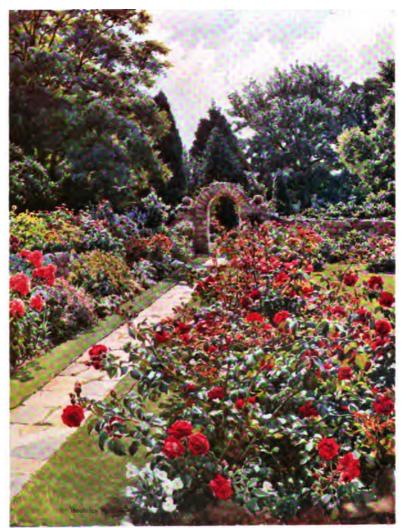
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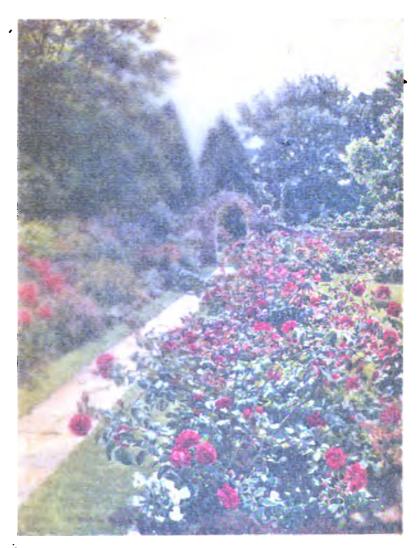






A SUSSEX ROSE GARDEN.

FIRST WEEK IN JANUARY



A SUSSEX ROSE GARDEN.

FIRST WEEK IN JANUARY

AN ARCH OF ROSES

Dorothy Perkins, an American climbing rose, is a hybrid between the Wichuriana Rose of Japan and a larger blossom. It is extraordinarily floriferous, producing large clusters of bloom in a rich shade of pink, and may be relied upon to cover an arch satisfactorily. The specimen here shown is a young one, on an archway leading from the terrace to the lawn, by a series of rustic steps, which are shaded at intervals by arches covered with roses and clematises.

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Wik.

AN ARCH OF ROSES.

IN MY LADY'S GARDEN

CHAPTER I

FIRST WEEK IN JANUARY

ATURE is at rest, and during her winter sleep we may well look round our gardens with a view to increase their beauty or, it may be, to lay out the ground entirely afresh.

There is a certain modesty which sends most of us to the landscape-gardener for advice under these circumstances; but let us by all means avoid mediocrity in this matter, and either employ a thoroughly competent person or else plan out our gardens to our own liking; for in either way we shall escape the monotony and deadly uniformity of the average garden, and there is really no reason why we should not impress our special tastes on our gardens as well as on our rooms.

But there are various considerations which must not be forgotten in the arrangement of a garden. The style and size of the adjoining house, the aspect, slope, size, and surroundings of the piece of ground in question, will modify our plans, for it is not possible to lay out gardens for the stately mansion, the cottage, and the town house on the same lines. Any natural points of interest contained in the grounds should be preserved, well-grown trees should be retained where it is possible to do so, and the views from the windows should be considered. A broad terrace or pathway

IN MY LADY'S GARDEN

of gravel may well surround the house, as affording dry footing in wet weather; and from this terrace the principal paths should lead. In many gardens far too much space is sacrificed to unnecessary paths, and the whole effect is spoiled and stiffened by a multiplicity of sharp angles.

Having drawn a careful outline of the piece of ground to be planned, adding the positions of the entrance, the house, windows, back-door, &c., it will be easy to determine the line of the drive or path, which should lead directly to the house

in a gentle curve if possible.

Mathematical outlines are out of place in all but Dutch gardens; the slightly curving line of path, lawn, or border is far more picturesque and restful to the eye, setting off the landscape to greater advantage, as harmonising with Nature.

In a garden of considerable size a pergola may be erected, the most picturesque materials for which are slender pinepoles with the bark on; they should be 8 feet in height above the ground, having an additional 18 inches in the soil, which should be well dipped into the tar-bucket before putting them in.

But a pergola—i.e., a series of arches more or less connected overhead, and covered with creepers—cannot be set down anywhere in the gardén; it must have a distinct raison d'être, or it becomes meaningless and out of place. Such a shady way should lead from one part of the garden to another, it may be from the terrace to the lawn, or the flower garden to the kitchen garden, or the orchard, but its position must be definite. Single arches, covered with roses, clematis, and other climbers, are far more easily placed; for they may span the pathways with great effect, even in a small town garden, but are specially desirable where they will frame a distant view.

If flowering shrubs are to be planted, let them be well selected, well placed, and well planted; not ordered by the hundred, and huddled together so that the stronger and more uninteresting shrubs (usually flowerless too) will strangle the more dainty and desirable plants. Too many of our shrubberies are filled with greenery only, where

FIRST WEEK IN JANUARY

glorious great bouquets of blossom might have rejoiced our eyes, and it is not always that these plants are shown to the best advantage.

The lawn should be broad and fairly level, with no flowerbeds to interfere with its restful expanse; yet a few wellgrouped trees, or flowering shrubs, may be planted on its outskirts or massed at salient points at its side with

advantage.

Shady nooks and glimpses of the distant scenery, framed by foliage, add greatly to the charm of a well-kept lawn, and the possibilities of adding such distinctive points to the whole effect must not be overlooked. Where the pleasure-ground adjoins the kitchen garden the latter should be screened off by groups of flowering trees and shrubs; it may be at intervals, with fruit-trees between them on the kitchen garden side, as apple, pear, and cherry-trees are amongst our most beautiful objects in the garden when in bloom; espaliers, too, most decorative in effect when covered by blossom or fruit, can be used to break the line of demarcation; but by all means let us eschew the privet hedge, which not only has a powerful and disagreeable odour when in flower, but also exhausts the soil unduly for many feet around it, and entails much labour to keep it in order.

Herbaceous borders should be fairly wide, and may be arranged to follow the line of a path or the front of a redbrick wall, or a hedge against which the taller plants (white foxgloves, blue delphiniums, hollyhocks, sunflowers, &c.) will stand out with great effect. If small flower-beds are required, let them be arranged in a group apart, it may be in conjunction with a circular series of arches for climbing roses, or some other special feature.

A water garden is a delightful addition to the rest, but few gardens contain a lake or pond within their precincts. These larger pieces of water are not, however, necessary to the cultivation of the finer varieties of water-lilies lately introduced; although a most beautiful effect can be produced by planting the edges of a lake with semi-aquatic plants and shrubs. But the smaller Nymphæas and other

valuable water-plants are far more safely placed in tanks, small artificial ponds, or even in tubs sunk to the rim in the ground; so that there is no valid reason why they may not be grown by all. Bog-plants, too, such as the splendid flagirises of Japan (Iris Lævigata, syn. Kæmpferi), can be cultivated in the same receptacles, with flowering ferns (osmundas) and many other interesting and beautiful plants. The margins of a running stream may be set with azaleas, spiræas, and many moisture-loving plants; but water-lilies do best in still water.

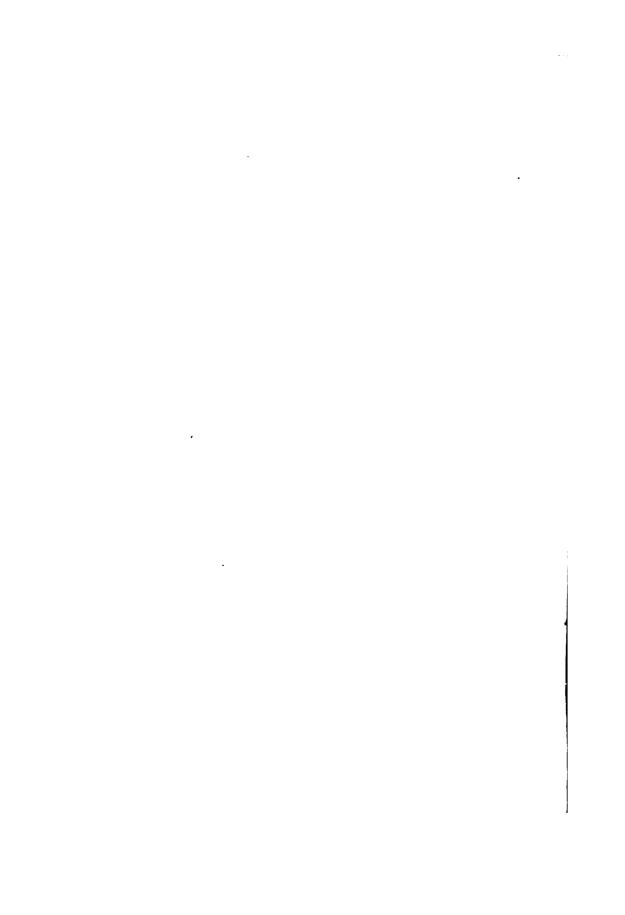
On the other hand, a sunny, well-drained terrace may be utilised as the best position for many rare and beautiful irises from Algeria and the East of Asia, which need strong sunshine and dryness in the late summer.

There are, in fact, few gardens which might not be improved by the addition of some special points of interest, to give them individuality and beauty, and this will surely be the case where the owner of the garden does not fail to study this subject, if not to make it a hobby.



CRINUM CAPENSE

The great white Crinum of South Africa is a noble Amaryllis, standing about 4 feet high; several umbels of pure white lilies are thrown up from the bulb from May to November, according to the amount of warmth provided. The plant is, however, nearly hardy, being dormant in winter, and can be grown in any place free from frost. It is most decorative in the cold porch, or in the house when in blossom. Some of the varieties are flushed with pale pink.





CRINUM CAPENSE.



CHAPTER II

SECOND WEEK IN JANUARY

HE year is still very young, yet there are abundant signs that Nature is awakening from her winter. sleep, which begins with the fall of the leaf, and lasts only until the dark days before Christmas are past.

Already the full buds on the crimson hawthorn, globular with bloom at every point, indicate the wealth of colour which is to come; the hyacinths, tulips, and early narcissi are pushing up their green points on all sides, and the crocus buds will soon unfold their shining petals in sheltered corners; whilst the birds, gay and bright in their winter plumage, are already rehearsing their spring songs of nests and the coming summer on every mild sunny day. Their courting-time is near, and although cold weather may put off their matrimonial affairs for many weeks yet, they are quite aware that the "turn of the year" is past, and that sunshine and spring are on their way to us.

A happy New Year to them, as well as to the rest of us in the garden; for they greatly add to our pleasure in it, and also help us to succeed. Even the much-abused house sparrow is now hard at work clearing off the seeds of myriads of weeds (which would otherwise swamp our flowers), and the large full eye of the robin is ever on the alert to detect the slightest movement amongst the crisp fallen leaves which may indicate a hiding caterpillar in the

curl of the leaf.

The starling, which has his home in the roof (but spends his days as yet on the topmost bough of the fir-tree,

chattering and whistling like a parrot), never seems to migrate, as many of his kind are forced to do; he is a first-rate under-gardener, and is to be encouraged in every way, for his long, strong beak is his implement to pierce the sward of the tennis lawn for the fat white grubs of the daddy-long-legs, and he also enjoys a breakfast of "leather-jackets," the terrible larvæ of the cockchafers; so more power to his bill, for it does work which we cannot undertake. He is a merry fellow, too, and full of his pranks, whilst he practises all kinds of imitative sounds on his perch, always the highest point he can select, so that he can keep an eye on what is going on around him, and give due notice to his mate should danger arise.

In every conservatory there should be, I think, a climbing asparagus (plumosus), for no plant is more useful for cutting, to say nothing of its rare grace and delicate lace-like appearance. This asparagus belongs to the order Liliaceæ, and absolutely differs from the ferns in every particular, yet is more commonly called the asparagus fern than by its proper name, and there is much confusion in the mind of the ordinary gardener as to its real nature and cultivation. But it is as much an asparagus as the delicious vegetable (A. officinalis) we all know well, and may be cultivated on somewhat similar lines. It is a plant which enjoys a free root run and a light yet rich soil, with a mulch of old hot-bed material each year in April, when it starts its new growth.

Trained up a slight pillar in the conservatory, it is always ornamental, throwing its long sprays far and wide, and adding greatly to the effect of the roses, the jasmines, and other climbers with which it mingles. If kept in a pot it never attains this delightful size and luxuriance, and where there is not a suitable position for it in a warm greenhouse, it is better to select the smaller variety (A. plumosus nanus), a very similar plant in appearance, but without the length of stem and strong growth of the type. This asparagus makes a very elegant furnishing plant in winter, when its growths are hardened; but while young

SECOND WEEK IN JANUARY

shoots are pushing up in summer it enjoys a more moist atmosphere than that of a room, and should be kept in the greenhouse at that time. Then there is the trailing Asparagus sprengeri, which also makes a pretty furnishing plant in its younger stages; but after the first few years it should be allowed to hang below the conservatory roof in a basket, for its growths are then several feet in length. Other members of the same family are A. retrofractus, A. decumbens, and A. medeoloides, all handsome climbers, but scarcely so beautiful as A. plumosus; they all enjoy a winter temperature above 50°, when they require less water than in the summer, but must never be allowed to become dust dry; whilst in spring and summer an ample supply will be necessary.

All of the asparagus tribe can be most easily propagated from seed sown in slight warmth; the roots of pot plants may be divided when they are repotted in spring, and cuttings of the last season's growth may be induced to strike roots in light sandy soil under a bell-glass, sinking the pot in a hot-bed for the first six weeks. Smilax, too (which also belongs to the lily order, and is nearly allied to asparagus), can be propagated best by seed, but also by division of the roots and by cuttings; just now the smilax (well named S. ornata, for it is most decorative) which wreaths the back wall of the vinery is in full bloom, the tiny white flowers, like miniature lilies, being produced at the axils of the leaves. They are richly fragrant (almost too much so for use in a room), and will be followed by scarlet berries. The new growths are trained each on its separate string from the time it starts, for if once allowed to ramble, the long trails cling around each other, and become useless for table decoration; whilst if carefully trained, each spray is perfect and straight, easily detachable, too, from the wall by cutting the string at either end, when it can be pulled out without difficulty, leaving the trail of smilax intact. The roots will now be mulched with a rich compost, and more water than they have had during the past three months will be supplied to them as new growths appear.

Successful gardening is only to be accomplished by doing things at the right time, and although Christmas is scarcely over, no time must now be lost in arranging and starting our gardening for the season; for every week in the year has its appropriate work, which, if neglected then, cannot be so satisfactorily done later on.

Under glass, various amaryllids are pushing up their foliage after a sleep of three months, during which time they have been kept cool and fairly dry, though not entirely deprived of water. The stately crinums from South Africa are the first to awake, and their roots, which are very strong and abundant, need more room yearly, as the bulbs become larger. Crinum capense album, with umbels of pure white lilies, is one of the hardiest and most desirable of all; for it is a plant which all may grow, whether in a hothouse, a cool greenhouse, or even in the garden; although in the latter position it flowers very late in the season, and should be given all possible sunshine and warmth.

In a sunny verandah this plant will do well if kept entirely in the open air; the bulb remains dormant until the spring, and does not suffer from the cold; but in severe weather it is advisable to wrap a mat round the large pot or tub which contains the roots, and draw this protection also over the bulb. If grown in warmth, the first flowers will open in May, and several umbels will be thrown up in the course of the summer, each from 3 feet to 4 feet in height, containing from five to twenty-five blossoms. Without heat the plant is less luxuriant; but it is always handsome, and should be seen far more commonly than it is. Crinum Moorei, C. longifolia, and C. Powelli are all fine varieties in pink and also in white, which, however, should be grown in a greenhouse rather than in the open air.

Amaryllis hippeastrum, with magnificent scarlet flowers, should also be repotted as soon as fresh signs of growth appear; the exhausted soil can be shaken out, and a compost of good rich loam, two parts to one of leaf mould, with a little soot and sand, will suit most of the amaryllids well. As their roots are thick and abundant, it is very necessary to

SECOND WEEK IN JANUARY

take special measures in order that this soil should fill the interstices between them, and the pot must be thoroughly shaken during the process of repotting to ensure this, the compost being used in a rather dry state for the purpose. After repotting, the bulb should be three parts uncovered on the surface, and the pot can be placed in a warm position, supplying the roots with water in increasing quantities as growth develops. A. hippeastrum flowers in the spring, early or late, according to the warmth provided; it can

be grown in a window, however, and is nearly hardy.

Amaryllis hippeastrum Ant. Roozen is one of the finest of these plants (introduced by the well-known horticulturist of that name, of Haarlem, Holland), with enormous blooms of great substance, each petal being over 3 inches across, the diameter of each flower being 8 inches, and the height of the stem on which they are borne 30 inches. The colour is remarkably beautiful, the reticulations of the petals being in the richest velvet-like carmine on a creamy-white ground, whilst a distinct silvery star in the centre extends to the edge of each petal. This plant is rivalled by the deep blood-red flowers of H. Goliath, which are striped with white, and H. Autocrat, in pure scarlet, but for chaste colouring it cannot be excelled, although the crimson and

white tints of H. Queen Wilhelmina are splendid.

After blooming these bulbs should be thoroughly ripened in full sunshine; they will gradually lose their foliage during the summer; but this must never be allowed to droop, although much less water will be necessary for them at that season than in their time of active growth in spring. When the last leaf has turned yellow and disappeared the bulbs should be kept cool and almost dry until the end of the year, after which, with a temperature of 60°, they will soon show signs of growth. Large bulbs do not require to be repotted yearly if in suitable pots, but in this case a top-dressing should be laid over the surface of the soil after removing about an inch of the upper part of it. Old hot-bed material (thoroughly dried and free from insects), with a little soot or Clay's fertiliser, can be used for this

purpose. They may then be placed in warmth, and kept moderately moist until growth becomes rapid, after which ample supplies of tepid water will be needed, with liquid manure and rich top-dressing in the case of bulbs which have not been repotted. Hippeastrums can be raised from seed, or propagated by means of the off-sets from the sides of the larger bulb at potting-time; these will bloom, if well cultivated, in about two years, whilst seedlings are longer in coming to perfection.

THIRD WEEK IN JANUARY

IRIS BUCHARICA

This beautiful flower, in creamy white with bright yellow blotches on its falls, can be grown either in a pot (when it blossoms early) or in a sheltered dry border in the garden, where it is most effective at the end of March. Its roots should be covered by a pane of glass raised a few inches (on small pots) from the ground from September until March, in the open air, as too much moisture is injurious to them at that time.







IRIS BUCHARICA.

CHAPTER III

THIRD WEEK IN JANUARY

BLOSSOMS are perhaps less plentiful at this season than at any other date in the year. The last of the chrysanthemums has gone the way of nature, the spring flowers are awaiting fuller sunshine, and we must turn to the early bulbs and the blossoms of warmer lands for our

mid-winter bouquets.

The graceful hyacinths of Italy (white Roman, followed by pink and blue Italian hyacinths) are easily forced, for this is their natural blossoming time; Van Thol tulips, too, and the deliciously fragrant freesias of South Africa, have been available since Christmas; but the secret of success in growing all these early-flowering bulbs is to start them early. The freesias for Christmas were repotted in July, and the tulips and hyacinths not later than the end of August, thus allowing the autumnal sunshine to do its work in starting their roots, when but slight fire-heat under glass from October onwards will do the rest.

Arum lilies, too, must be potted up in August for early work, having spent the summer in the garden, and lilies-of-the-valley are available throughout the winter if retarded crowns are used until the end of January, for ordinary crowns will only produce flowers without foliage in mid-winter.

What a delightful flower Iris reticulata is! Blooming early in the year, its rich colours are most welcome with those of the polyanthus narcissi, for they form a fine contrast—the creamy yellow of the narcissi with the deep blue and purple, touched with white and gold, of this iris. The

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blossoms are scented like violets, and it is one of the easiest of the winter-flowering irises to manage, even enduring slight forcing (in pots) for the greenhouse; but in the south it will grow in the open air and multiply itself satisfactorily. The bulbs should be put in as early as possible in the autumn, and the situation should be sheltered and well drained if in the garden. We have had a succession of exquisite winter irises since October, when the first Iris stylosa opened; I. Bakeriana was the next, a tiny gem in deep violet and cream colour; this, like I. stylosa, comes from Armenia, and also enjoys the same dry warm spot, or may be grown on a sunny rockery. I. alata, in palest azure, opens about the same time (i.e., at Christmas, or sometimes earlier); then the Persian irises (I. persica) in variety, of which the newer kind, I. persica Heldriechi, in blue violet, is scarcely so distinct as the type, which is in palest egg-shell blue, blotched with apricot and deep purple. I. histrio, too, bloomed in the garden, a handsome little flower in rich blue, white, and gold; whilst the charming fragrant blossoms of I. stylosa keep up a continual succession all the winter. A collection of irises is much more attainable to most of us than a collection of orchids, and certainly is most interesting; there are but few weeks in the year in which the blossoms of one iris or the other may not be gathered in the garden, and how varied and beautiful they are!

I. Bakeriana is nearly allied to the reticulata group, but quite distinct from them, however. The variety Norma is finer than the typical plant, and both bloom very early in the year. The yellow blossoms of I. Danfordiæ are decidedly effective with the purple and blue of those of the reticulata irises, with which it is classed by Sir Michael Foster; it comes from Asia Minor, and flowers in February, the cultivation being similar to that of the rest of this group, i.e., good drainage, light soil, and plenty of sunshine, with slight protection for their flowers in winter, but plenty of air, whether in the border or the greenhouse.

There are several varieties of I. alata, the white one (alba)

THIRD WEEK IN JANUARY

being successfully grown at Kew; atro-coerulea is in deeper tints of lilac than the type, and the rare variety cupreata is in copper colour.

An interesting hybrid between two members of the Juno irises (i.e., I. sindjarensis and I. persica) is named I. sindpers, a plant which partakes of the nature of both parents; for whilst it is more dwarf than I. sindjarensis, it produces several blooms on one stem somewhat in the same way as that parent, although the colour (a pale blue, slightly blotched with black and deep yellow) partially resembles that of either plant. I. sindjarensis is one of the most beautiful of all, in sky-blue; it is hardy in a light soil, flowering well in the open ground in March; but it may also be successfully grown in a pot, when its rare and delicate colour is very useful in the conservatory.

A handsome companion to the last is I. bucharica, with very similar foliage, rather resembling that of the leek, creamy white standards, and deep yellow falls; a most effective flower of recent introduction from the mountain slopes of Eastern Bokhara. It is easily managed in a pot if planted sufficiently early; in a mild climate it does well in the iris border, which receives the protection of a glass frame sloping from the south wall behind the plants. I. Fosteriana is another interesting Juno iris, which is curious and rare, with blossoms in purple and gold. It comes from Afghanistan, and receives its name from that of the late Sir Michael Foster, the great authority on these plants, who has done so much to popularise them.

One of the special needs of many irises is to be left alone when once happily established in congenial quarters, and this is especially true of that most valuable of winter flowers Iris unguicularis (syn. stylosa), which will provide an abundance of beautiful and fragrant blooms for cutting from November until April if well grown in a position which suits its requirements. This is usually to be found in every garden, for it only needs poor, gravelly soil, well drained, and a place at the foot of a sheltered south wall, where it will be extremely dry and thoroughly roasted by the summer

sunshine, to increase both the size of its clump of roots and the number of its blossoms yearly for at least twelve years.

The two small plants thus placed on a sheltered terrace in the garden six years ago have now extended themselves into masses of foliage and flower 2 feet across, and each season they have blossomed more abundantly, so that lately it has been no uncommon thing to count forty blooms and buds opening at the same time on either group. Their colour (a rich shade of mauve, touched with white and golden yellow) is most beautiful; and they possess long stems which, including the style, reach the length of 12 inches, these

making them most desirable for cutting.

Being natives of Algeria, they do not, however, enjoy our winter storms; although the plant is quite hardy the delicate satin-like petals of their flowers are easily torn by strong winds and soiled by heavy rain; in bad weather, therefore, it is advisable to gather those buds which show colour before they open, placing them in tepid water in a warm room, when they will quickly unfurl their petals, expanding their flowers fully within a few hours. The pure white variety (I. stylosa alba) is also a very desirable plant, and there are several distinct varieties amongst the rest, such as marginata, which is feathered with white on the falls; speciosa, with deeper shades of purple; and lilacæa, a pale mauve variety which blooms later than the typical plant. There are no more valuable winter flowering plants in the open air than these irises, and their almost universal neglect in our gardens is to be deplored. They need no mulching, nor must they have rich soil; all that they crave is to be left severely alone, only requiring a gravelly soil and abundant sunshine. They can be planted either directly after they cease to bloom, in April, or in October; in the latter case it will be desirable to shelter them during their first winter by means of a pane of glass slanting over the plant from the wall, as heavy rain, snow, and severe frost may otherwise injure them, although they take no notice of these things when once established and in full growth.

January is a trying month for our feathered gardeners,

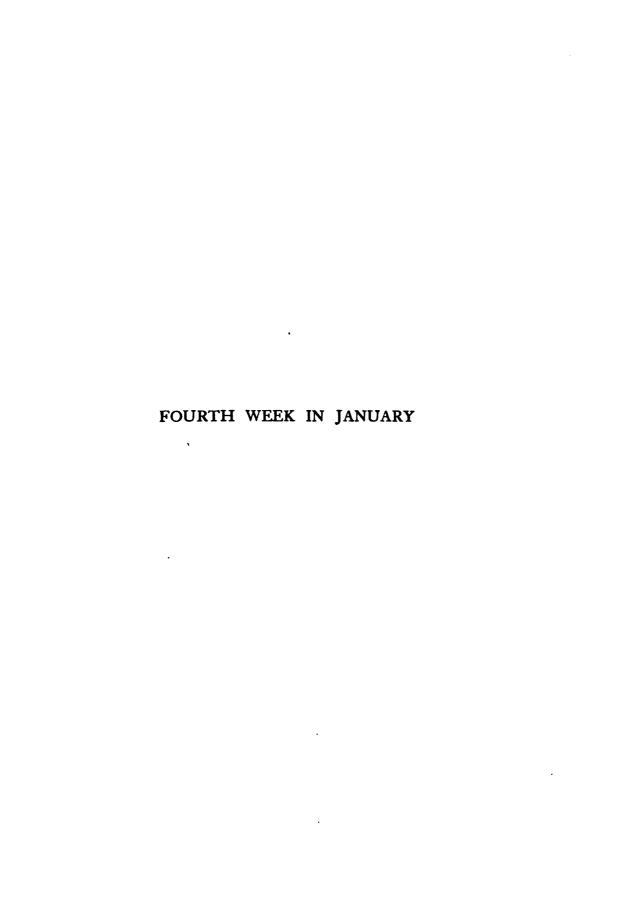
THIRD WEEK IN JANUARY

and their needs must not be forgotten during a time of severe weather. The garden is now full of birds, which flock in from the surrounding fields in a half-starved state. They are fed as soon as it is light with warm food, and again towards the afternoon, for they need enough to last Water, too, in shallow them through the long cold night. pans, they enjoy during a frost, and their antics when taking a bath are very amusing. The tiny blue titmouse, the marsh tits (just like a blue tit gone into slight mourning), the longtailed tits, and the handsome greater titmouse, with greenish plumage, primrose-yellow breast, and a cap and stole in the richest black velvet, are amongst the most fascinating, and the robins and little blue-birds are so bold as to fly into the room and feed from the hand. They have a cocoanut now, however, and a lump of beef-fat, to supply them with animal food; and to this store comes the jewelled kingfisher, from the brook in the valley below, for the water is frozen and the waterfalls are turned to icicles.

Kingfishers are so beautiful that one is glad to help them through the bitter weather; but this particular bird is not a desirable neighbour where goldfish are kept. Several times we have stocked the small ponds (in which the water-lilies grow) with goldfish, which have disappeared one by one in mysterious fashion, until we found out that our handsome neighbours, the kingfishers, were feeding their nestlings with these delicate morsels, conveying them to the queer dark hole in the bank, uncomfortably lined with fish-bones, in which the young birds are hatched. But to watch the young family taking lessons in fishing from their parents, their exquisite turquoise and emerald tints gleaming in the sunshine as they dart to and fro over the water, is enough to induce us to grant them forgiveness for their poaching in the garden.

Goldfinches, chaffinches, titmice, and the lovely bulfinches which now visit us in small flocks enjoy hempseed; the blackbirds, thrushes, and starlings (all most valuable in the garden) like bread, vegetables, and any scraps from the dinner-table, moistened with hot water; or a stiff paste

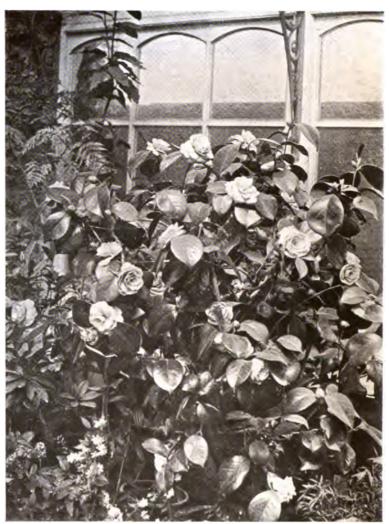
made by mixing boiling water with meal will suit them well. The blackbirds, which spend their time ordinarily in searching for slugs and other insects, and the thrushes, which live on snails, hunting them out of their lairs during every mild interval, are such excellent under-gardeners that they cannot be allowed to suffer; and if they do take toll of the fruit in summer, they have surely earned their wages, whilst it is easy to net the fruit, or to loop black cotton on small stakes over the strawberries just before the fruit is ripe, which effectually keeps marauders at a distance, for the unseen touch of the tightly-stretched cotton makes them fear a trap.



CAMELLIA JAPONICA

These fine shrubs are nearly hardy, only requiring the shelter of glass without artificial warmth to flourish far better than in a heated greenhouse, and produce hundreds of blossoms. They need careful watering, however, and must never be allowed to become very dry, or their buds will fall off instead of expanding.







CAMELLIA JAPONICA.

CHAPTER IV

FOURTH WEEK IN JANUARY

EW modern houses are without some glass structure; it may be large or small, shady or sunny, a porch, a greenhouse, or a conservatory, but it will largely depend upon the knowledge and taste of the owners whether or not this corner of the house is the delightful spot it should be, refreshing to the eye with rich colouring and full of

fragrance.

The most common mistake in furnishing a greenhouse is to procure plants without much reference to their requirements, and to try to grow tropical flowers in a temperature which does not suit their nature; yet there are plenty of handsome plants which need no heat, and can be grown to perfection in a cool greenhouse, where they often do better than when subjected to artificial warmth, all the heat that is necessary to their welfare being easily supplied by placing a well-trimmed lamp or small hot-water stove in the centre of the floor during severe weather, or when the thermometer might otherwise go below freezing-point.

Of course, where hot-water pipes are laid on, there will be less trouble to keep the greenhouse gay in the middle of winter; but the object of this chapter is to point out what may be done without this help, and to suggest suitable plants for a place from which frost only is excluded. Scarlet geraniums, though usually seen in every greenhouse, are not amongst these; they look miserable in winter without fire warmth, and are apt to become a prey to mildew if kept in a moist, low temperature, so that they are really safer in the sunny window of a sitting-room than in a cool greenhouse,

for they prefer a dry atmosphere, and will stand a certain amount of cold if kept out of the way of winter damp.

Chrysanthemums, on the other hand, last longer and are less subject to the attacks of green-fly in a cool place (the later varieties being only just over), but they must have plenty of air and sunshine, or mildew may injure the blooms. These are plants which can be grown best on hardy lines; cuttings rooted without fire heat are more sturdy than others, and the young plants can be hardened off and grown entirely in the open air from April till October, after which time they will only need a glass roof over them to do well.

Before the last of these bright blossoms fades, the early bulbs of many kinds should be open; Roman hyacinths, Van Thol tulips, narcissus in variety, the sky-blue Scilla sibirica, snowdrops, and golden crocuses being amongst the first to appear, with the exquisite blossoms of the early irises, alata, persica, Bakeriana, and reticulata, which are quickly followed by Italian hyacinths and others, tulips in many brilliant tints, and these by such irises as bucharica and sindjarensis, with the new hybrid between this variety and I. persica, named I. sindpers.

These bulbs look best when allowed to peep out between the fronds of ferns, and a collection of hardy ferns will be found useful in grouping most pot plants; but the more delicate maidenhairs (adiantums) must not be relied upon for this work in a cool house, though there are plenty of

other ferns which will do well.

Pteris tremula (always one of the most useful of our ferns) is hardy enough to stand a little frost, and very light and decorative in effect; Onychium japonicum—with finely-cut shining fronds of great beauty—is equally robust; Adiantum pedatum, the Canadian maidenhair, thinks nothing of our cold after that of Canada; Cyrtomium Fortunei is very distinct and handsome, also hardy, though coming from Japan; and the fine woodwardias from the South of Europe (W. radicans) and from North America (W. americana) make magnificent basket plants, with fronds which reach the length of 5 feet. Both are hardy enough to grow in the

FOURTH WEEK IN JANUARY

open air in Devonshire, and are suitable for a cool greenhouse; and our own beautiful British ferns should not be omitted, choosing some of the best of their varieties.

Having selected the necessary ferns, a few good foliage plants will be of use as a background to flowers; the hardier palms, such as Chamærops excelsa, Chamærops humilis, Cocos australis, Phœnis sylvestris, and P. canariensis, may be trusted to do well without fire heat, for they will grow in the open ground in the south of our islands, and one or two handsome specimens give height and tropical effect to a group of smaller plants. Then the handsome growths of Hedychium gardnerianum in winter, and its singular orchidlike spikes of bloom in summer (pale yellow in tint, with long scarlet appendages), are always effective, and the new growths must not be cut down after flowering. plants need large pots (or small tubs), with rich soil, being kept almost dry during the cold months, but supplied with plenty of water, liquid manure, and sunshine from May until November; they do not require to be repotted yearly (blossoming best when their pots are full of roots), but should be richly top-dressed each year in April.

Camellias—with their shining leaves and waxen blooms—are always effective; they do far better without fire heat than in a warm conservatory, and only need to be protected by glass in winter. Peaty soil suits them, with firm potting and plenty of water throughout the year, and their richly-coloured blooms are very beautiful in the early spring. The same treatment will suit the loveliest of all the azaleas (A. mollis), which is absolutely hardy, but its exquisite blossoms, in apricot and salmon-red, are apt to be injured in the garden during the cold winds of early spring, and

therefore do best under glass.

Rhododendrons, too, especially the early hybrid varieties, will open their splendid blossoms in February under glass, without fear of frost or bitter winds, which often injure them in the garden. R. Nobleanum and R. arboreum coccineum are amongst the best in crimson; R. ochroleuchrum is a dwarf plant, with pale apricot blossoms; and

R. caucasicum album is in pure white; R. arboreum wellsianum is in brilliant carmine crimson, and Mme. Wagner is bright pink with a white eye. These plants are best grown in tubs, with a compost of peat, loam, and leaf mould in equal quantities. For a cool greenhouse or porch roses are amongst the best of climbers; and their growths should be trained horizontally on wires about 15 inches below the glass roof, something in the way of a vine, so that the sap is evenly distributed, with the result of blossoms at every axil of last year's growths, which become well ripened in the autumn.

Biennials of many kinds should be sown in the garden in May, planting out the seedlings in a nursery bed in July, and potting up those not needed for the garden in October, for use in the cool greenhouse, where they will bloom early and well. Amongst these are the splendid dwarf wallflowers in crimson, apricot, deep red, and other shades; these should stand in the open air (their pots being sunk in ashes) until January, when they may be brought into the greenhouse, and, if placed near the glass, will blossom quickly.

Tall white and spotted foxgloves (Digitalis alba and D. maculata) are very elegant, flowering in May; and campanulas in variety (especially the chimney bellflower C. pyramidalis) are most effective if treated in the same way. Tufts of turquoise forget-me-nots (such as Myosotis Victoria, M. Perfection, or M. Royal Blue) can be potted up from the garden just as they show colour for use in the cool greenhouse, and, if kept thoroughly moist, will feel no check; these come in very usefully as an edging to a group of rhododendrons.

One of the great advantages of a glasshouse without fire heat is that the tropical blights, which are so troublesome with warmth, do not flourish in a cool place; and there are various flowering shrubs which are apt to be infested with scale, mealy-bug, thrips, &c., in the hothouse, which can be grown far better with no heat. Oleanders are a case in point; every insect which infests plants will worry this unfortunate shrub in a warm place, but if grown in the open air during

FOURTH WEEK IN JANUARY

the autumn, and in a cool greenhouse in winter, half their difficulties will cease, and, when once cleansed, they can be kept clean.

At Torquay oleanders will grow in the borders from year to year, becoming very robust, and producing plenty of buds; but these sometimes fail to open for want of strong sunshine, which these plants greatly need. If grown in tubs, however, lifting them into the greenhouse in November, the plants should be given the sunniest position, with their buds near the glass, in March, when the flowers will open satisfactorily during the summer. They need an abundance of tepid water during the spring and summer, with a rich top-dressing, too, yearly; but in winter they should be kept quite cool, and Pruning is only necessary when the plants fairly dry. become too tall and leggy; they should then be cut down to about a foot from the ground in February; but they will not flower (after pruning) for eighteen months, as their fresh growths need to be ripened in the open air during the autumn months before they will produce bloom. There is a foolish idea prevalent in the matter of pruning oleanders which requires correction; it is often advised to cut off from the central spray of blossom the three young growths surrounding it, which are produced at the same time; these, however, are full of embryo bloom, and represent the natural increase of the shrub, so that, in removing them, the plant is put out of shape, and prevented from flowering for eighteen months; whilst the idea that the flowers will not open if these shoots are retained is altogether erroneous. Blight and want of water and food or of sunshine are the real causes of failure to bloom in these plants.

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FIRST WEEK IN FEBRUARY

NARCISSUS, "HER MAJESTY"

All the polyanthus group of the narcissus blossom naturally earlier than the rest. They are therefore specially useful for room decoration in bowls, and a succession of these charming flowers should be secured for the winter months.

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NARCISSUS HER MAJESTY.

CHAPTER V

FIRST WEEK IN FEBRUARY

INDOORS we have long since enjoyed the fragrance of the Chinese joss flower (one of the tazzetta group of narcissi), and the later-flowering varieties of the polyanthus narcissus are now in full beauty in the house, blossoming to perfection in a bowl of shingle and charcoal, kept thoroughly moist with tepid water. These arrangements of daffodils are highly decorative, as well as full of rich fragrance, making "sunshine in a shady place" with their richly-tinted blossoms.

The polyanthus narcissus, Her Majesty, is surely the queen of all that group of narcissi; the bulbs are large, and well they may be, for they are packed full of exquisite blossoms in creamy white, with apricot cups, which, when grown in a bowl, make a delightful decoration for the room, filling it, too, with fragrance. All the polyanthus section of the narcissus (including the sacred lily of China) do well in a bowl of gravel and water, with a handful of charcoal in small lumps intermixed; but too often these arrangements are not well managed, the result being long, weakly foliage, and flowers which cannot hold up their heads, and flop about accordingly.

After placing the bulbs in the bowl in September, half-covered with gravel and charcoal, the bowl should be half-filled with water, and then placed in a dark but airy place for about six weeks, until the green points of growth begin to move. A cupboard (unless the door be left open) is not a good place for them, for air is essential, or mildew may appear; and it must not be forgotten that the water will

need to be filled up once or twice as it evaporates. as growth begins, however, the bowl must be at once removed to the sunny window (or a greenhouse, being placed close to the glass) of a room in which there is a daily fire, a south-east aspect being the best for it. gas must be burned in this room, or the flowers will dwindle away instead of developing sturdily. Tepid water should be used to fill the bowls (which will now require an addition of water more often than before), and as soon as the flower spikes show colour a covering of fresh green moss should be placed over the bulbs, and the bowl may be used for decorative purposes. After flowering, we cut off the flower stems before they have time to form seed (as this exhausts the plants), and when the weather is sufficiently mild the bulbs are transferred to the garden without much disturbance of their roots, planting them 2 inches below the surface. They do not blossom much the following season; but after that time they recover entirely, and provide plenty of bloom in the early spring.

In the warm vinery the early vines in pots will be in bloom, and will need a buoyant and rather drier atmosphere for a few days, although the roots must be well supplied with water, if in a pot. Every day, at noon, the rods should be smartly tapped with a stick to disperse the pollen; and where Muscat grapes are grown it will be found a good plan to have the tails from two rabbits tied on to the end of a bamboo or stick, and to pass these gently over the bunches of bloom when fully open. Still more effectual will this be if the pollen from black Hamburg vines is collected as it drops, and kept dry in a small box until the Muscat vines are in bloom, when the rabbits' tails should be dipped into this pollen to distribute it on the Muscat flowers, which are shy of setting properly if left alone. They need a higher temperature, too, than harder varieties, and should always be given the warmest position in the vinery.

Pot vines, which can be grown in any sunny glass structure, must be very highly fed, and will then do well. Rich top-dressings, with an occasional sprinkling of lime, a

FIRST WEEK IN FEBRUARY

large quantity of tepid water, and (when the fruit is set) a daily dose of soot-water (or other liquid manure), besides the thorough morning supply of water, will be useful to swell the grapes; and these must be thinned and the side-shoots pinched off (two leaves above each bunch) as soon as possible after the grapes are set. If well attended to, and syringed with tepid water daily (closing the house at 3 o'clock p.m. for the night, and opening it early, but gradually, in the morning), excellent grapes may be grown in a 12-inch pot, or a box of about the same size, in an ordinary greenhouse.

In the vinery various plants and seeds are being forced in a convenient little hot-bed made up on the hot-water pipes, which are here double. To do this, it is only necessary to knock the bottom out of a common deal box of a convenient breadth and length to fit the position, and substitute for the wood a piece of fine wire-netting. The box can then be placed on the pipes, and almost filled with clean moss, which has been dipped into boiling water to destroy all lurking insects in it. A thermometer placed in this moss should show a temperature of about 80°, and the fire must be kept up steadily to maintain this. It is easy to increase the warmth by placing a piece of wood or glass over part of the box, if necessary, but a very high temperature is not desirable for most plants, especially during their early The moss which composes the hot-bed is kept continually wet with warm water, and everything plunged in it is also kept moist with the same from a can kept also on the hot-water pipes, so as to be of the same temperature. In this little hot-bed there are pots of lilies-of-the-valley, which come into bloom in three weeks from the time they are plunged, covering them at first with the moist, warm moss, but allowing them to emerge from it as they grow, for they need to be carefully hardened before they are placed in the dry, cool atmosphere of a room.

A number of very small pots contain each the seed of an Indian shot (Canna indica), which has been previously soaked in warm water (on the pipes) for forty-eight hours;

and in other thumb-pots there are vine-eyes, each pegged down horizontally into a little rich soil; these will quickly start into strong young vines, and be grown on rapidly, with plenty of warmth and food, to supply the pot vines for next season. Then there are other plants which enjoy moist warmth to start them into life, such as Richardia Elliottiana, the rare yellow calla; this arum does not blossom at the same time as the white calla (Æthiopica); it needs to be kept dry and warm in winter, blooming in the middle of the summer, and is altogether a much more difficult plant to manage successfully; caladiums, too, which will not start without moist warmth, and many other plants from tropical countries will start well in this hot-bed.

Spending many quiet hours in the garden, one gradually becomes aware of certain curious little melodramas (usually leaning towards a comedy, but sometimes, alas! ending in a

sad little tragedy) which are being enacted there.

Each of the robins (Sylvia rubicula) which live in the garden has a separate patrolling ground, and three or four of the birds are well known to us. There is Ruby, the little beauty who was tamed from the nest last summer, before she donned any red feathers at all; she is now in possession of the shrubberies at the end of the lawn, where her bright red breast and delicate silver-grey waist-coat may be seen at any time, for she comes to the call, and feeds from my hand. Sylvia, my old pet of four winters, haunts the pergola, and owns that part of the south terrace on which my window opens, where she appears each morning for her early breakfast as soon as it is light. She is the tamest of the tame, and is always on the look-out for biscuit, which she prefers to bread.

But between the two domains there is a walk overhung with nut-trees, and here another robin lives, who is, I believe, the mate of Sylvia. He has never been a friendly bird; in fact, I fancy he does not approve of his wife's weakness for humans and biscuit, and he lures her away from the garden every spring to nest elsewhere, though the pair always reappear in October. Now that St.

FIRST WEEK IN FEBRUARY

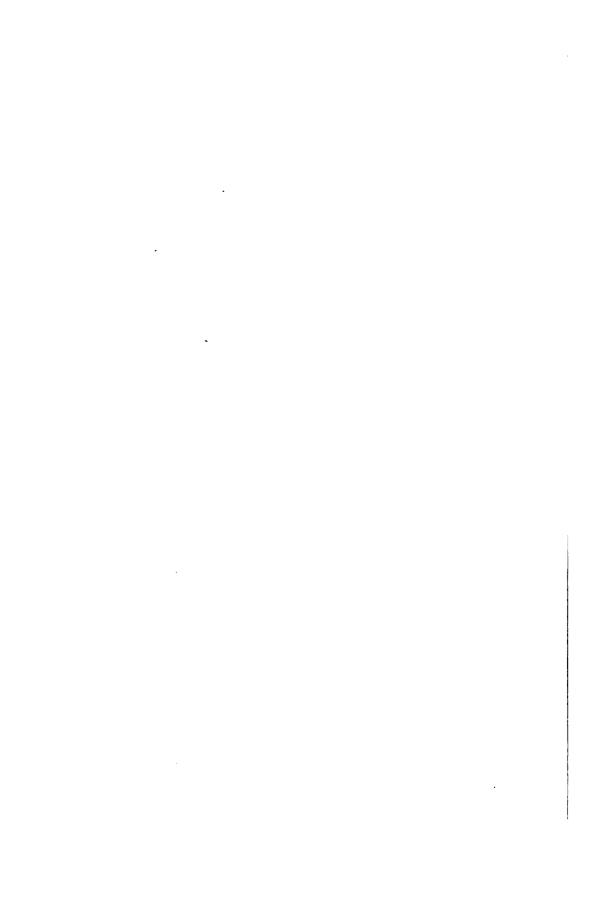
Valentine's Day is approaching (and the time, too, when the lawn needs attention), it is amusing—in searching for daisies on the tennis lawn—to watch these three birds arrive on the grass for the scattered crumbs, and the consequent flirtations and jealousies which ensue. Whether the old beau will forsake Sylvia for the gayer looks of Ruby is not yet determined; but in that case I fancy the little widow will pair off with a smart young bird which resides near the entrance gate, and pays her marked attentions when he can do so without attracting the notice of the older robin, which would certainly get the best of it should it come to a serious fight. But probably the next "cold snap" will quiet them all down; and the terrific encounters which now take place will be forgotten in the anxieties of the search for food.

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SECOND WEEK	IN FEBRUARY	

FREESIAS

The delicious fragrance of these dainty little irids from South Africa makes them very acceptable in the winter. They can be enjoyed from December until May, by means of starting their corms early and late; and their roots increase and multiply year by year. The pure white variety is Freesia refracta alba; another (Leitchlini major) has rich orange blotches on the upper petals, whilst a newer variety is in pink, but blossoms later than the rest.







FREESIAS.

CHAPTER VI

SECOND WEEK IN FEBRUARY

F all the irids of South Africa there is none more dainty and fragrant than the freesia, and this is a bulb that is within the reach of most of us, for it will grow in a window as well as in a greenhouse, although in that case it does not, of course, blossom so early in the year. It has the merit, too, of reproducing itself yearly, under good culture; so that when once a few corms are obtained, there should be an increasing supply year by year, without the constant expense which the far less lovely hyacinths entail.

But there are special points in the culture of the freesia which must be thoroughly grasped to ensure the best results, and we have to remember that these flowers are natives of a climate of extremes, very unlike our own, and to imitate it, so far as we can do so with the limited amount of sunshine

which we enjoy in these Northern islands.

The freesia blooms, with myriads of other bulbous plants, on the veldt of South Africa during the rainy season, and this gives the clue to the fact that it requires a thorough supply of water during its time of growth (i.e., from September or October until its blossoms are over), when any want of water will be fatal to success. But when the flowers are over it is still necessary to give a certain amount of moisture to the plants, although they do not require so much as before; and this is one of the points in which the ordinary gardener often fails, for the pots are too often placed on their sides under the staging, with the idea of "drying off" the corms before they have completed that

most necessary work—which they would naturally accomplish before they go to rest—of perfecting their embryo blooms for the following season. To do this they need the help of their foliage, which should ripen away gradually as the blossoms are formed in the centre of the corm; and in suddenly depriving the plant of its leaves we render it

incapable of carrying out this important process.

The plants should, therefore, be kept slightly moist for some weeks after the flower is faded, to allow of the natural ripening of the foliage, which must not be allowed to droop. But when the last particle of the leaf has turned brown we must imagine that the rainy season is quite over, and the intense dryness of the South African climate has set in, so that our treatment of these plants will completely change. The pots should then stand in the warmest, dryest position we can give them, close under the glass roof of a sunny greenhouse, or, failing that, in a warm corner of the garden or the leads, with a piece of glass raised a few inches above the pots to keep off rain and increase the warmth of the sunshine. Not a drop of water must now reach the corms for about six weeks, for without this baking process (in June and half of July) the flowers, although already formed, may fail to appear.

About the middle of July the corms should be shaken out of the soil and sorted, repotting the larger sizes, and placing the smaller corms (which will not flower the following season) in a box of suitable size, with the same kind of soil, &c., as the other, to grow to flowering size. About twelve corms will fill a 5-inch pot; this should be well drained, and rather more than half-filled with a compost of good rich loam, leaf mould, and sand, with a little soot and charcoal, in small lumps. Place the corms an inch apart, with their pointed ends upwards on this, and cover them with an inch of the compost, leaving ample room for top-dressing and water later on. The best place for the potted corms is in the full sunshine in the open air, and they should not be

covered at all with ashes or anything.

Very little water will be needed until the green points

SECOND WEEK IN FEBRUARY

appear; but, when once started, they must not be allowed to become very dry, and increasing quantities of water will be needed as they grow, with soot-water twice a week when in bud. Top-dressing, too, with fresh compost, with which a little hot-bed material (dried and free from insects) has been mixed, will be needed two or three times as they become taller, moulding them into place, so that the foliage remains upright. Three small stakes (such as those cut from the stems of Michaelmas daisies) can be placed around them, with thin raffia between, and they should need no separate tying up, which spoils their natural grace.

From the beginning of October the pots should be placed close under the glass roof of a warmed greenhouse; the blossoms will then appear early in December. By means of repotting other batches in August, or even September, and giving them less warmth in winter, a succession of these charming flowers may be secured from December to May.

At this time of year forced shrubs of many kinds are most valuable in the conservatory, and also in the cool green-house or porch, where various hardy plants which naturally blossom early are now very decorative. One of the best of these is Spiræa Thunbergi, a dwarf shrub from China and Japan, which does well in a pot for some years, flowering profusely even in quite a young state, its blooms opening before those of the better known Deutzia gracilis, another delightfully graceful plant when in blossom. The starry white flowers of Spiræa Thunbergi almost cover its slender sprays; the foliage, which appears with the flowers, is elegant, too, and bright green in colour, and the plant has the merit of absolute hardiness.

In the garden it flowers considerably later than this, according to the season; and the leaves become most brilliant in the autumn with various warm tints of red and yellow, if the shrub be grown in the full sunshine. When kept in a pot it is necessary to place the plant in a sunny position for the summer, to ripen its growths; but it will need abundant water for its roots at that time, with less in

winter while dormant; and an increasing quantity, with light syringings with tepid water, as soon as it shows signs of fresh growth. This is, in fact, the regimen for forcing many shrubs; for without the hardening effects of the open air and sunshine they do not blossom well, but most of them will respond to the idea that winter is past, and produce their flowers early if kept in a slightly warm atmosphere and indulged with warm showers. But a sudden change from winter to spring does not suit them, and the mistaken plan of forcing which consists of placing a plant suddenly in a hothouse with a summer temperature is the cause of many failures.

A gradual increase of warmth, always accompanied by genial moisture, is necessary for them; and with but slight fire heat (in frosty weather only) this spiræa, deutzias, and the beautiful Chinese prunus (sinensis) produce their flowers before February is over. All three can be propagated by slips of the new growths in spring, or by cuttings of the half-ripened wood in summer; the soft shoots now available on a forced plant should be slipped off with a slight heel of the older wood, and placed round the edge of a pot of light sandy soil, mixed with a little charcoal, and well drained. They should be kept close for the first few weeks under a bell-glass in a warm temperature, giving them more air as soon as they begin to grow. They must have lukewarm water, and should not be allowed to droop; if potted up in good loam as soon as they are rooted, and shifted on as they need more room, they quickly make useful plants, both for the conservatory and the garden. Lilacs, Japanese cherries (cerasus pseudo cerasus), early rhododendrons, and azaleas are also very decorative under glass in the early spring, as well as various spiræas.

THIRD WEEK IN FEBRUARY

TYDÆAS

These handsome plants, with brilliant blossoms and velvet-like leaves, should now be started in moist warmth.







TYDŒAS.

CHAPTER VII

THIRD WEEK IN FEBRUARY

THE most interesting order of gesneraceous plants, indigenous for the most part in South America and on the slopes of the Andes, provides us with many brilliant blossoms.

Most of the members of the family, such as the achimenes, have now taken their rest, and these will shortly be ready to start into life again. It is quite possible to provide ourselves with the richly-tinted blossoms and velvet-like leaves of one or other of the gesneraceous tribe throughout the year; for although autumn is the time of bloom for gesneras, tydæas, gloxinias, and streptocarpi, with other less well-known members of this order, can be induced to blossom almost at any time.

Gloxinias especially are amenable in this way, and by means of sowing seed of these flowers, or starting the tubers early and late, they will be available even at Christmas-time, when their glowing tints in ruby velvet or delicate shades of pink are invaluable.

All the gesneraceous plants are alike in this, that they do not require strong sunshine to open their flowers; for although they are natives of very hot countries, they naturally spring to life in the semi-shade of thick tropical vegetation, and therefore they prefer a slightly shaded position, even in our cooler climate, although they need warmth to start them. Those gloxinias which bloom late in the year are still at rest, their pots being stacked on their sides in the greenhouse, out of the reach of the frost, and dry; but from the middle of January onwards there will be some earlier corms which will show signs of life, and can then be

allowed to start, their tubers being placed on a thin layer of soil in a well-drained wooden tray, and kept fairly moist in a temperature from 55° to 70°; easily arranged, even in an ordinary greenhouse, by placing the tray above the hot-water pipes and covering it with glass, although all air must not be excluded, and it will be well to shade the glass in bright weather. Here they will quickly form leaves and shoots, when each tuber should be potted up separately in a small pot which will just hold it, and also given enough space around the tuber to water it, as water should never be allowed to settle amongst the leaves, and must always be supplied warm—i.e., at a temperature slightly above that of

the atmosphere in which the plants grow.

Unless a warm, moist, and shaded position in a hothouse be available, the gloxinias will still need the help of a glass cover for a time, and a convenient plan for a greenhouse is to place the pots in a box (over the pipes) a foot deep, containing a few inches of moist fine coal ashes at the bottom, which, when covered with glass, will supply the needed moisture to the atmosphere inside the box. They should be potted on several times as they require it, and when the buds show more air should be afforded, and the plants should be gradually hardened. As soon as the tint of the flowers is visible they may be lifted out of the box and placed in the conservatory to blossom, always choosing a half-shaded position for them without sharp draughts. Having so little need of strong sunshine, they make excellent room plants when in full bloom, as they then do not require so much moisture in the air as before, and will do well in a lower temperature also at that time.

For winter blooming the tubers may be started early in the year, when they will blossom in May or June, after which they can be rested by being kept rather dry and cool for a month or two, when they should be potted on, giving them a mixture of peat, good loam, and oak-leaf mould in equal quantities, with plenty of charcoal in small lumps, some dried cow manure, and a little soot and sand. If placed again (after this shift) in moist warmth, they will

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THIRD WEEK IN FEBRUARY

produce a fresh set of buds, which will afford plenty of bright flowers at this time of year. Seeds sown in heat in January should be potted on throughout the summer and kept growing, when they will bloom also toward the end of the year, making charming little plants for table decoration.

A very interesting hybrid between a gloxinia and a gesnera is the gloxinera introduced by Messrs. J. Veitch, of Chelsea, with rich carmine-crimson blossoms; this will probably prove the forerunner of a new race, for one of the peculiarities of the gesneraceous plants is that they are easily induced to hybridise with other members of the order of a different genus, and in this way various new races of plants have already originated.

Messrs. Ant. Roozen, who make a speciality of these singular and interesting flowers, catalogue a large number of hybrids amongst them, as well as rare and but little-known plants, well worthy of much more attention than they obtain. Isoloma hirsuta (itself a remarkably handsome plant, with flowers in most brilliant scarlet, and velvet-like leaves edged and veined with the same tint) has been hybridised with the tydæas, the result being a race of isolomas in many various tints, of robust and floriferous habit, growing to the height of 3 feet, and producing many sprays of richly tinted flowers during the autumn and winter.

These hybrids having again been crossed with Sciadocalyx digitalishorum, another distinct genus—the sciado-tydæas—has been the result, plants which have kept the robust habit of the sciadocalyx with the rich colouring of the tydæas.

The achimenes, too (which are better known in our green-houses than many other gesneraceous plants), have been hybridised with the gesneras, producing the splendid nægelo-achimenes Rubicond and others, which have a much longer period of blossom than the achimenes, and these may be induced, under good cultivation, to flower for six months.

Achimenes of good varieties, in clear violet-blue, scarlet, white, and purple, may be induced to bloom in succession by means of starting their singular little stolons at intervals

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from January until the end of May, in the same way (abovementioned) as gloxinia tubers, except that the stolons of achimenes can be lightly covered with soil (whilst the tubers of gloxinias should be nearly uncovered), and when the young plants are 2 or 3 inches in height they can be placed at once in their flowering pots (using a dozen plants for a 5-inch pot), or grown in a wire basket lined with moss, when they exhibit their masses of beautiful flowers to per-The little plants should be placed with their heads through the wires so as to cover the basket, the upper layer of plants covering the soil. The compost recommended for gloxinias will suit them, as well as the other gesneraceous plants, and the basket should be soaked in tepid water every alternate day whilst the achimenes are growing, and syringed daily until the flowers expand. It is necessary to hang the basket in semi-shade, too, as strong sunshine is very injurious to these plants.

Gesneras are started in the same way as achimenes, but each stolon will fill a 5-inch pot, and they require no shift if the soil be rich. They have very beautiful foliage in vegetable velvet plush, veined and mottled with rich crimson, and the erect spikes of bright blossoms they produce are in many shades of red, apricot, cream, and pink. G. vivid is in carmine, shading to apricot in the throat of the flower, with dark foliage, which adds to the beauty of the blossoms; G. leitchlini is clear yellow, and G. amabilis has pure white blossoms, whilst other hybrids are in various rich tints. The original gesnera (cinnabarina), though brightly coloured, produced smaller flowers of more spreading habit than these new hybrids, which are of the neat, dwarf type, which is far more desirable; they may be started from March till June, in successive groups for autumn and winter flowering, but they require a minimum temperature above 550 to do well after September.

Tydæas blossom more quickly than gesneras, and are easier to manage; three corms may be placed, when started, in a 5-inch pot, and will be very effective in the greenhouse in summer, continuing to produce their brilliant blossoms in

THIRD WEEK IN FEBRUARY

intense scarlet, crimson, and salmon-pink, spotted with a deeper tint, for many weeks.

Dolichodeira tubiflora is a very distinct member of the gesneraceous order, with a large tuber like that of a gloxinia, and highly fragrant flowers in pure white, one of which will scent the conservatory in summer. It is grown on the same lines as the gloxinia, but it is considerably taller. Kollikeria argyrostigma has specially beautiful foliage, in rich dark green, flushed with purple and spotted with white; its small blossoms are produced on long spikes in great profusion, the colour being creamy white, flecked with scarlet. Another most beautiful foliage plant is Certoderia splendens, with richly tinted, velvet-like leaves and salmon-scarlet flowers. This plant does best in a basket, and requires considerable warmth in winter, but is well worth the little extra care it requires.

Saintpaulia ionantha is the smallest of the gesneraceæ in cultivation, being only 4 or 5 inches in height. On a tuft of dark green leaves it displays its profusion of pretty blossoms in amethystine blue, a rare colour in this order, and indeed amongst all flowers. This plant does not lose its leaves entirely in winter, and should never be dried off. Its cultivation is somewhat similar to that of the betterknown streptocarpus, but it is not quite so hardy as the latter, which may be successfully grown in an ordinary greenhouse temperature, whilst the saintpaulia suffers if the thermometer goes below 50° in winter. Many beautiful varieties of the streptocarpus have been introduced of late years, those in white, with a purple throat, being amongst the best; these plants can be raised from seed and potted on as recommended for gloxinias, keeping them in active growth until they attain flowering size. After blooming they may be rested for a few weeks by giving less water, but they should not lose all their leaves nor be allowed to droop. In February they should be repotted, starting them in moderate but moist warmth.

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FOURTH WEEK IN FEBRUARY

LILIUM SPECIOSUM MELPOMENE

All the varieties of the Speciosum group are extremely beautiful, in various shades of pink, flushed with crimson, or in purest white. They are hardy, if planted with care, but the bulbs should not be deprived of their lower roots before planting them.







LILIUM SPECIOSUM MELPOMENE.

CHAPTER VIII

FOURTH WEEK IN FEBRUARY

ALTHOUGH the autumn is the best time for planting in most cases, there are exceptions to this rule, the more delicate lilies from Japan and other tropical countries being amongst them, for the heavy cold rains of winter are apt to destroy these bulbs whilst in a dormant state, and are more dangerous for them than the frost. But when once well established they will weather our winters, if properly planted and slightly protected; it is during their first few months (when they too often have been deprived of their lower roots for packing purposes) that they are in the greatest danger; home-grown bulbs, such as are now produced by some of our horticulturists, being far more likely to do well, as these can be obtained in an unmutilated state, and are hardier, too, than those sent to England from tropical lands.

In planting liliums, it is well to remember that most of them possess two quite different sets of roots, i.e., the fleshy roots below the bulb (which should never be removed or allowed to become very dry), and the many whorls of fibrous roots which spring from the annual stem as it grows, which may be observed just above the surface of the soil, hungrily searching for fresh food in summer. Singularly enough, these two sets of roots each prefer their special nourishment; the lower roots must not come in contact with animal manure, and should be planted in pure turfy loam or peat, with plenty of sharp sand and a little charcoal; whilst the fibrous stem-roots are able to assimilate

any rich food, and will be the better for several slight mulches of old hot-bed material as they grow.

These remarks do not, however, apply to the hardier lilies of our gardens, such as the scarlet Turk's-cap lily (L. chalcedonicum), the Madonna lily (L. candidum), and others (easily distinguished by the absence of fibrous surface roots), although in every case it is not desirable to plant the bulbs in soil which contains fresh manure.

A position which is slightly shaded, and at the same time well drained, should be chosen for Japanese lilies in the garden; and if the soil should be a heavy clay, it will be necessary to take special precautions to ensure thorough drainage. A pit about 2 feet deep should be dug, laying 6 inches of broken crocks at the bottom; these can be covered with ashes, and turfs, with their grass side downwards, should be laid over the drainage, filling the hole to within 4 or 5 inches of the surface with turfy loam, fibrous peat, and leafmould, with a liberal admixture of sand and charcoal, especially just below the bulbs, the upper part of which should be 4 inches below the surface when planted and covered with the same compost. When put in during the autumn it is necessary to add a conical pile of fine coalashes over the bulbs, for the double purpose of protecting them from the frost and preventing a settlement of water above the bulb; this is not so necessary at the present time, as the bulbs will shortly begin to make growth, and are not then in so much danger from moisture; during a severe frost, however, a covering of some sort should be given; a piece of glass raised on bricks 4 inches above the soil, or a layer of litter, will be sufficient protection. Manure, which keeps the surface wet, should never be used as a mulch in winter, for it is the aim of the cultivator that the soil should then be as dry (and, therefore, as warm) as possible; but when the first hungry roots appear on the stem of the lily in May, it will be well to feed them with rich material, which will then be of service in keeping the surface cool and moist. Where a pile of ashes has been used to cover the surface, this should be removed towards the end

FOURTH WEEK IN FEBRUARY

of March, when the tender points of the lilies will be found beneath them; great care must, however, be taken that these are not injured, and no spade should be used in removing the ashes.

The liliums which may now be planted mostly come from Japan, but a few good hybrids of European origin may be added. One of the best of these is L. testaceum, a hybrid between the Madonna lily and the Turk's-cap, a pale yellow flower of great beauty. L. Marhan, too, the result of hybridisation between a white martagon lily and the yellow variety of L. Hansoni, is remarkably handsome; but the golden lily of Japan (L. auratum), with its fine varieties, platyphyllum and rubro-vittatum, is perhaps the most popular of all, its grand blossoms filling the garden with perfume. In fact, the fragrance of this flower is often too strong for a room, and it should, therefore, be grown either in the border, or in a pot or box, for the balcony, where all the lilies here mentioned will do well.

It is easy to plant the bulbs in pots or boxes on the same lines as in the border, i.e., to lay good drainage and some fibrous loam, &c., below them, and to place the bulb halfway down the pot (which should be 8 or 9 inches across at the top), only covering the bulb, however, with an inch of the compost, and reserving the rest of the space for repeated top-dressings, to be added later on. Ashes may be used to protect the pots from frost and wet until April, or they can be placed in a frame; but they should not be given much fire heat at any time, as this makes them weakly, and they are sure to become a prey to aphides if kept too warm. With regard to their water supply, it must not be forgotten that, although but little moisture is needed in winter (when the bulbs are more or less dormant), they can scarcely have too much water when in growth; liquid manure, too, or soot-water, should be supplied when the buds begin to appear, especially during dry weather.

The beautiful crimson-spotted blossoms of L. speciosum rubrum (of which the variety Melpomene is one of the finest) contrast charmingly with the pure white satin and silver of

L. speciosum Krætzeri; both should be added to the list of our finest lilies, with the white trumpets of L. longiflorum; and the apricot blooms of L. Henryi (a Chinese lily from the heights of the Yang-tze-Kiang river) must not be omitted, although this lily does better in the border than in a pot.

Tiger lilies (especially the fine variety Lilium tigrinum splendens) are absolutely hardy, and very decorative in the garden, whilst Madonna lilies (Lilium candidum) are amongst the finest of garden bulbs. They should not, however, be planted in the spring, as they are already in

full growth.

Lilies of all kinds do well in a town garden, and may even be grown in boxes or pots to adorn a balcony in London if their cultivation is carefully carried out. FIRST WEEK IN MARCH

TIGRIDIAS

These magnificent irids can be grown in a sunny border in the garden in the same way as gladioli. They are in many tints of salmon-pink, apricot, scarlet, and white, tigers with a deeper shade in the centre. A border of these flowers resembles a flight of tropical butterflies in effect during the summer months.

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TIGRIDIAS.

CHAPTER IX

FIRST WEEK IN MARCH

SPECIALISING in a hobby of any kind greatly increases its interest, and in the culture of flowers it is desirable to devote oneself more especially to one or two groups of plants, though not to the exclusion of all others; for a garden devoted to one kind of flower only lacks interest during a great part of the year. Irids of all kinds include not only irises, but gladioli, morceas, ixias, tigridias, maricas, the Kaffir lily (schysostylis), with many another lovely blossom from South Africa, where the veldt is gay with innumerable flowers at this time of year. Irids, therefore, of all kinds, are amongst our favourite flowers, and it is seldom that the garden is without some rare specimen of this class.

Knowing this hobby of ours, a lady friend kindly gave us a potful of small seedlings in 1900, which she described as "a beautiful iris brought from Ceylon." Now, Ceylon is not famed for any special iris, and these seedlings were rather a puzzle until we could settle their identity. For four years they were grown out in the vinery before the first blossoms appeared, and when this took place they made a sensation, for it was evident that this exquisitely beautiful flower was not exactly an iris, but what was it?

Recourse was had to the authorities of the Royal Horticultural Society, to the late Sir Michael Foster (the great specialist in irids), and to Kew, and all these authorities concurred in pronouncing the newcomer to be a greatly improved form of Morœa iridiodes, a plant indigenous to South Africa, which had never been credited to Ceylon.

It appears probable that the seed was originally brought from the Cape of Good Hope to the mountainous districts of Ceylon, where the warm, moist climate and rich soil have so greatly changed the character of the flower as to practically make it a distinct variety. It is therefore named Morœa iridioides Johnsoni, after the name of the lady who brought it to England, and it obtained much admiration from the Scientific Committee of the Royal Horticultural Society and at the Temple Show of 1908, where it was exhibited for the first time.

The original flower is about half the size of the new moræa, being 21 inches in diameter, against 41; the colour of the floral stamens (which is milky blue in the Cape variety) has become a rich mauve, the stamens having greatly increased in height and breadth; whilst the pale yellow blotches on the perianth segments (which are now doubled in breadth) have increased in size and become golden yellow, with rich bronze markings at the base of each petal. The substance of the whole flower has so changed that it now persists in beauty for three days (or longer in shade), instead of fading in a few hours like the original plant; and the foliage, low and fan-like as it used to be, is now 30 inches in height and upright. The chaste colouring of violet and orange on a creamy white background, which this morea displays, is charming, and the plant is altogether an interesting one. It produces blossoms at intervals from spring to the late autumn, needing a minimum temperature of 500 in winter (when it should be kept rather dry), with plenty of moisture as soon as spring arrives. It thrives without difficulty in loam, with sand and a little charcoal, and is decidedly an easy plant to grow, although but little known as yet.

Another rare irid, which requires like treatment, is Marica Northiana, the marvellously tinted flower brought to England from South America years ago by Miss Marian North, whose flower-paintings in the Kew Gardens are well

known.

This flower is powdered with peacock tints in blue, crim-

FIRST WEEK IN MARCH

son, and bronze on a pale primrose ground, and these singular and beautiful blossoms are produced at the end of a long leaf, which also bears a tuft of young leaves, these eventually reaching the ground from their own weight, where they take root, and in this way the plant is propagated. This marica needs to be kept decidedly dry in winter, with a slightly warmer temperature than Morœa iridioides Johnsoni, but neither of them are difficult to manage. The marica blooms in the early spring, producing several flowers on the same leaf-stalk in succession.

Tigridias, which are amongst the most magnificent of irids, should now be planted, as well as the splendid gladioli (Kelwayi and others) with which our specialists in these gorgeous flowers have provided us of late years. Both tigridias and these gladioli should be taken up from the border in October, and kept fairly dry in a frost-proof place until the following March, when they can be planted again, choosing a warm, sheltered position for the tigridias, which are tropical bulbs from South America.

How brilliantly coloured the garden birds are now evidently arrayed for the season of courting, with all sorts of devices to attract the admiration of the other sex! Even the old starling, which resides on the highest chimney of the house now, has bright red legs and a fine golden bill, to say nothing of the lustrous sheen of his feathers, which, although they look black at a distance, reflect all the colours of the rainbow in the sunshine at close quarters. The ordinary dull brick-red and slate colour of the cock chaffinch is now changed for soft rich red, with an azure crest on his head; and the touches of black, white, and yellow on his wings make him extremely smart. But the tiny blue titmice, in turquoise, primrose, and soft grey-green, are the most fascinating little things, especially when they climb about and squabble over a cocoanut. The greater titmouse, too, with his black velvet cap, iridescent in the light, and fine stole of the same changing tint over pale yellow, is a very handsome fellow and most entertaining in his ways.

The robins are now busy with their matrimonial affairs; in fact, all the birds are intent on selecting the sites for their new nests, and are much excited about it. The garden is quite a concert-hall with their songs, the soft rich notes of the thrushes and blackbirds being specially musical on the evening hours of a showery day.

SECOND WEEK IN MARCH

SHIRLEY POPPIES

The beautiful hybrid poppies introduced by the Rector of Shirley (the Rev. W. Wilks) are extremely decorative, and should be grown early and late from seed. The blossoms are in various shades or carmine, pink, and white, and are wonderfully varied in tint.







SHIRLEY POPPIES.

CHAPTER X

SECOND WEEK IN MARCH

OW interesting the garden is in spring! At last we may hope for good weather, when March drops the lion skin to don the soft fleece of a lamb, and all the growing things are prepared to welcome the spring with buds and wreaths of blossom.

We are as busy as the bees just now, for young plants grow so fast and need so much attention, that the days are not nearly long enough. In the early vinery the grapes need to be thinned, and this delicate operation must be done very early in the morning, or the heat becomes unbearable, and might be dangerous later in the day. But it is such fascinating work. With a slender bone knitting needle we lift the grapes, no larger than a pea, and cut away more than half of them with the long scissors specially kept for the purpose leaving, of course, the largest berries and those which will form the best-shaped bunch. No hand must touch them; and we wear straw hats in the vinery, both for the sake of our heads and also to prevent the hair from coming in contact with the grapes, for very little will injure the bloom on them, which, once destroyed, can never be restored.

With this month the work of sowing annuals, &c., in the garden begins, as a rule; although in warm localities and sheltered spots some few seeds may be sown in the autumn or in February. Shirley poppies, loveliest of their tribe, should be in every garden; but the seed must be scattered very thinly, broadcast, not in a narrow circle. In sowing most annuals it is a good plan to mix the seed before distributing it with a little silver sand, scattering both together

broadly, for in this way it is easier to see what one is doing, and the seedlings will not be so likely to be sown too Rigorous thinning out, however, must be attended to as soon as the seedlings appear, for no two plants should be within 6 inches of each other; and in the case of Shirley poppies they will do better with still more room. peas, mignonette, blue cornflower, coreopsis, Gypsophila elegans, and sky-blue nemophila, with dwarf tropæolums, &c., are flowers for every one to grow, as they are quite hardy. Amongst the annuals that need a hot-bed to start them are alonsoa in variety (a beautiful flower in pure scarlet or salmon-pink), Arctotis grandis, zinnias, Nemesia Suttoni and its dwarf variety nana, and salpiglossis in various rich velvety tints; as well as the more common asters, stocks, and French marigolds, which are not amongst our special favourites.

A mild hot-bed under a frame is an excellent place in which to raise half-hardy seedlings; it is then easy to supply them with plenty of air as they grow, and they should be pricked out into boxes of light, rich soil as soon as they have four leaves, hardening them gradually as the season advances until they are ready to be placed in flowering Those who do not possess a frame can positions in May. raise them in boxes in a greenhouse with slight warmth; or, for late flowering, the seeds may be sown in a warm corner of the garden early in May, covering them with a glass of some sort, but admitting a little air. Seeds need but little soil as a covering, and deep sowing is a common cause of failure; but as soon as they are up they should have a light sprinkling of very fine soil, if sown near the surface. Poppies do not require this, however, for they quickly penetrate the soil, and they are not easily transplanted, except in their earliest stages, when the tiny plants can be taken up with plenty of soil on the tip of the trowel and planted elsewhere without disturbunce of their roots. these annuals need properly dug soil; it is useless to sow them in a border which has not been mulched and forked up since the winter, for they will do nothing in such a place.

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SECOND WEEK IN MARCH

But they are generally sown too thickly. Last year I saw, in a large private garden, a perfect basin of poppies, which had a very uncanny effect, illustrating the usual mistake in their cultivation. The gardener had sown the seed almost as thick as mustard and cress in a circular plot a yard across, and the consequence was that the poor little starved things in the middle were about 4 inches high, and only a few of the plants on the outer edge were of anything like normal growth. There is nothing more dainty for table decoration than Shirley poppies, so we sow them now for succession, and they will bloom soon after the self-sown seed of last year has finished blossoming. Sweet peas, too, are sown in the autumn here for the earliest work; but those put in now will bloom late throughout the autumn if the flowers are persistently cut before they drop.

One of the most effective of the so-called annuals introduced lately is the dwarf single dahlia, which, of course, is not an annual at all, although it can be used as such by those who do not care to keep the roots through the winter. The seed of these dahlias was raised in February in slight warmth, and the little plants are now potted up singly in thumb pots and being gradually hardened, to be planted out in May, as soon as frosts are over. They are quickly covered with blossoms, as large and as bright and varied in tints as the tall single dahlias; but they do not exceed 15 inches in height, which is a great advantage, making them almost as effective in the flower-beds as single tuberous begonias, which they somewhat resemble. Then they bloom till the frosts of the late autumn cut them down, and leave no terrible gaps in the borders to be filled with bedding plants in July.

The double Clarkia Salmon Queen is a beautiful annual, flowering all through the summer, too, most abundantly. The seed can be sown now quite thinly, and the pure white variety looks very pretty mixed with the salmon-pink. Stella sunflowers, in sulphur yellow with big black centres, are delightful towards the back of the border, especially if the background be an old brick wall, tinted with

purple, green, and madder-brown, as only Father Time

can paint it.

Talking of backgrounds, we lose much, I think, of quaint beauty in our gardens if we have no espalier apple trees. Quite incorrect, of course, they are in the modern and fashionable garden; yet what can excel their exquisite effect as a background to the herbaceous border in spring?

The dainty bunches of pink and white blossom are quite as ornamental as the rarest exotics, and these lack the old-world atmosphere which is so precious in a garden. I am the proud possessor of various espalier apple and pear trees, and also of an ancient wall, built hundreds of years ago, of rough blocks of granite, and wreathed with ivy, in which my favourite robins are now busily building their nest. As a safeguard against the prowling cat, we surround the nest at the distance of a few inches with freshly cut holly. Pussy objects to this prickly defence, and consequently leaves the young birds severely alone.

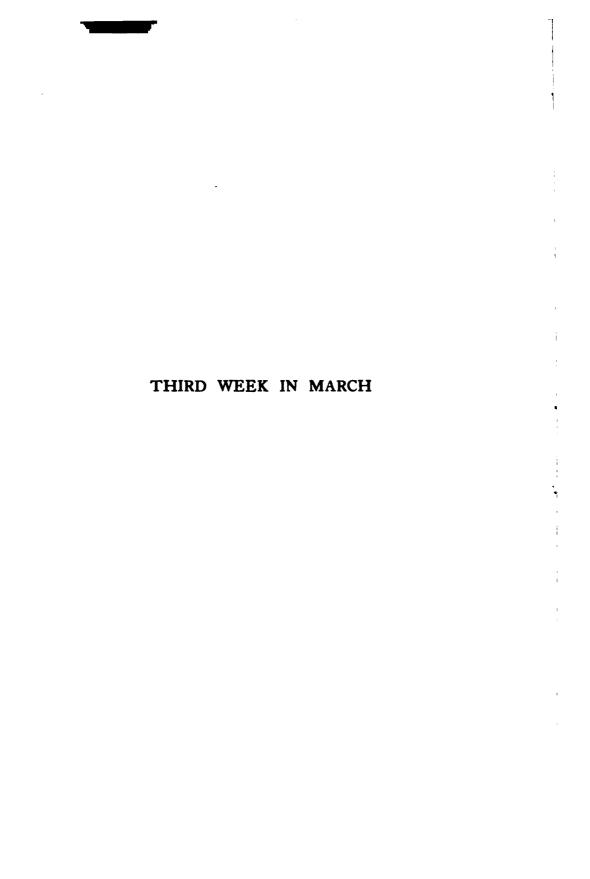
Tuberous begonias are much given to freakishness, and if one might credit them with our own failings, they might be said to be decidedly human. Not only do some of the single flowers (puffed up with pride and self-sufficiency because of their luxurious living) turn into those "bloated aristocrats" of the flower world, the double begonias, but when deprived of rich food and drink they quickly become frightened, and, dropping their gorgeous robes, soon shrink back into the original modest single flower. In Begonia cristata each petal is supplied with delicate flutings, finished by rich ruches, which are crimped and folded in the thoroughly correct mode. The colour of this flower is an exquisite shade of pale salmon-pink. Many other tints, however, are to be had in this remarkable flower, some in plain colours, others in stripes. Mr. Davis (the specialist in begonias, of Yeovil) advertises ten distinct colours, besides Begonia fimbriata crispa. These begonias are just awakening from their winter sleep, and should now be started, laying the tubers in a tray of moist light soil mixed with a little charcoal over a slight hot-bed. Very soon the little pink

SECOND WEEK IN MARCH

points of new growths will appear, and when these are half an inch in length each tuber should be potted up singly, providing it with only enough room for the water supply to be given around the tuber, which should be raised in the centre and only half-covered with soil; for there is a great danger of the tuber becoming rotten instead of growing if over-watered at this point of its cultivation. But when once the roots are in full growth and the plant produces buds, it will need a much more plentiful supply of water, always given at a temperature as warm as the atmosphere in which it grows.

Tuberous begonias can, of course, be grown without artificial heat, and will start naturally a little later in the season; they enjoy a little warmth, however, in their earlier stages, and should be gradually hardened off to the outer air as soon as buds appear, for these are given to drop in an unpleasant fashion if kept in a close, stuffy atmosphere. Here, again, they may teach some of us a lesson of the extreme value of fresh air, and the danger of hot, close rooms to health and beauty. Gas is poison to them, and they do best in the pure air of the country; in fact, they cannot have too much of the open air after their infancy if their health is to be robust. The compost which suits them best is a mixture in equal parts of peat, loam, and leaf mould, with charcoal in small lumps and a little soot and sand; the plants should be potted on several times as they grow, never allowing the roots to be short of food, but giving small shifts only. After their first potting a little dried cow manure should be mixed with the compost, in increasing proportion at each shift, and soot-water in a weak, clear state may be given twice a week, with abundance of clean water daily. They are propagated either by seed or by cuttings, these last being removed from the parent plant at the point of contact with the tuber, when two or three inches long, and potted singly in light soil, each in a separate thumb-pot. These cuttings, being very succulent, require but little water, but must not be allowed to droop; and they should stand in a shady position with

abundance of air, not covered with a bell-glass or placed in a cutting box. They form tubers in about eight weeks, and will be useful plants for late autumn flowering if shifted into a 5-inch pot, when rooted, with richer soil. They can only be taken satisfactorily, however, during the early part of the summer, whilst there is sufficient sun warmth to aid them in the formation of tubers.



PYRETHRUM WEGA

Pyrethrums, both double and single varieties, should be added to the borders in spring, with some other flowers which are scarcely hardy enough for autumn planting.

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PYRETHRUM WEGA.

CHAPTER XI

THIRD WEEK IN MARCH

HE winter, let us hope, is over and gone, and we may now turn to our flower borders with the intention of filling up gaps and rearranging the plants where neces-October, however, is the best time for the thorough digging and manuring of the soil, which becomes necessary at intervals of about four years (or less in light soil which quickly becomes exhausted), and a portion of the herbaceous garden is then taken in hand yearly. But for the rest, a top dressing of well-decayed manure at this time of year will be enough, and there is no doubt that many perennials resent the disturbance of their roots, doing better the second year after they have been taken up, divided, and replanted, than the first. Already there are many bright bulbs in bloom; daffodils are golden in the sunshine, and the later purple and white crocuses contrast delightfully with them; hyacinths in crimson, pink, and white are opening their bells, and the blue and silver of the chionodoxa (glory of the snow) is conspicuous amongst them, whilst tulips in many rich tints are showing colour, and will expand before the end of the month.

The strong growths of Madonna lilies, fresh from their winter rest, are pushing up at the back of the border, and the crimson foliage of the pæonies is almost as valuable now as their blossoms will be in May. It is because of these tender young growths, which make their start almost before the winter is past, that we must not attempt too much in the herbaceous border in spring, but only confine ourselves to careful measures.

But there are a few rampant growers amongst the perennials which are difficult to keep within bounds, and, unless they are prevented from robbing and crushing their more delicate neighbours, they will do much harm before the autumn, and must therefore be curbed at once. asters (Michaelmas daisies) are amongst the chief offenders in this way, for they quietly spend the winter in pushing out long and most vigorous roots on all sides, so that a clump which was small in the autumn will now be prepared to smother the plants which grow near enough to it without mercy. So terribly vigorous are these plants that it is a question whether they should not be relegated to the half-wild corner of the garden, where they could follow their own devices in peace. But, on the other hand, they are so beautiful in the autumn, when their cool tints contrast well with the glowing colours of the dahlias, and the carmine and gold of many leaves before they fall, that we cannot spare them entirely from the herbaceous border. There is one Michaelmas daisy, however, which is always welcome there, for it does not increase rapidly, and is not too rampant in growth, and that is the variety Aster ericoides, with fine heath-like foliage, and a mass of beautiful little daisies on slender stems, most desirable for cutting. This plant does not exceed 3 feet in height, and is very neat in habit, so that it is an excellent addition to the border at this time of year, and other varieties in mauve, white, and lavender can be added where there is plenty of room.

The perennial sunflowers (helianthus) are also most aggressive plants, quickly filling the border with a mass of strong roots, to the destruction of neighbouring flowers, and these must now be severely checked in their operations, unless they have an abundance of space, when the mass of golden blossoms they produce in the early autumn will be very effective in the border. In removing the superabundant roots of these plants, it is well to remember that such strong-growing things exhaust the soil very severely, so that it is necessary to add rich material in the spaces which they have filled before putting in other plants.

THIRD WEEK IN MARCH

Amongst the newer introductions in the herbaceous border the sidalceas, in delicate pink and in white (S. rosea and S. alba), are very pretty, their spikes of blossom rising from distinct and handsome foliage. They belong to the mallow family, and are of easy culture. Another desirable newcomer is the Canadian phlox (P. canadensis), of which Perry's variety is specially good. The blossoms of this plant, produced in loose sprays, have something the same effect as those of the plumbago, being of delicate blue and similar shape, and we never have too much of this rare tint in our gardens. Veronica saxatilis is another blue flower which is little known, but well worthy of a good position in the front of the border, as it is a dwarf plant with blossoms I inch in diameter. Yet another new blue flower is the lovely Stokesia cyanea, with sky-blue blooms from 2 to 3 inches across; but this plant is not absolutely hardy, and should have the protection of a raised glass over it in winter, except in the most favoured parts of our islands and near the south coast. It should be planted at the present time (not in the autumn), covering it at night until well established, in case of late frosts and sharp east winds, when it will blossom well in the summer. It may also be grown as a pot plant in a cool greenhouse, and in a cold district this may be the better plan.

The newer varieties of the Oriental poppy (Papaver orientale) are much more valuable than the typical plant in pure scarlet, although this, too, is magnificent, and its colour is very effective. P. orientale carminata is a gigantic flower in carmine-pink, Delicata is in the colour of a blush rose, and Novelty is distinguished from the rest by its rich tint of crushed strawberry, whilst Medusa is in brilliant pink, and the dwarf variety, Rose Queen, is very handsome. These perennial poppies are amongst the plants which resent any disturbance of their roots, and when once established in deep rich soil they should be left alone (except in giving them an annual mulch in March) to form a large clump of their carrot-like roots, which penetrate deeply in the soil. Their splendid blossoms are extraordinarily effective at a

distance, being so large and richly coloured, so that for a position at the end of the lawn or at the side of a carriage

drive few plants are more desirable.

Marguerites of all kinds have a charm of their own, but none can excel the beauty of the pyrethrums, such as James Kelway, in brilliant cardinal scarlet; Mary Anderson, in blush pink; and Queen of the Whites, a pure white blossom. Some of these flowers open much earlier than the rest (Decoy, for instance, expanding its first blooms, in rich pink, about the middle of May), whilst others, of which Apollyon is a sample, have a second season of blossom in the autumn, and will provide cut flowers in November during a mild year. The double pyrethrums, of which Wega is one of the best, are equally beautiful. When planted in the autumn pyrethrums often suffer severely from the cold and wet; it is therefore safer to put them in during the spring, taking care that they have good soil and do not want for water during their first season.

Incarvillea grandistora is a new variety of I. Delawayi; both are grand plants for the herbaceous border, which, although they come from the East, and belong to the tropical order Bignoniaceæ, appear to be perfectly hardy. The secret of this is, probably, that they do not risk appearing above ground until the middle of May, when the worst of our cold weather is past; their fine fern-like foliage then springs up with a rush, and the beautiful sprays of bloom, on stout foot stalks, are well displayed above it. I. grandistora is not so tall as I. Delawayi, with brighter crimson flowers, centred with white; both are well worthy of a good position in the herbaceous border, and should be planted in March.

It is not, however, desirable to fill the border completely at this time, if there are dahlias, blue salvias (patens), and young plants of pentstemon, pyrethrums, &c., to be planted out next month, for it is too early to risk these just yet (especially as winter so often seems to encroach on the spring in these days); but plants which are out of place can be moved, and the general appearance of the flower border

THIRD WEEK IN MARCH

much improved by careful consideration at the present time. There are, too, a few plants (such as some of the campanulas) which quickly exhaust the soil in the centre of their position, becoming untidy there, whilst the outer edges of the group are in a flourishing condition. In this case the old roots in the middle should be removed, and rich soil substituted for them, rearranging the rest of the mass of roots as convenient, or replanting them in a different position.

As a general rule herbaceous borders are at their best in June, but as we usually require our gardens to be gay throughout the summer months, it will be necessary to provide plenty of plants which blossom in July, August, and September, long after the grand show of pæonies, blue delphiniums, pinks, foxgloves, &c., is over. Early flowering chrysanthemums are valuable in this connection, many of them opening their blossoms in August; carnations, which can now be put in from pots, are indispensable for July; and blue salvias will add their rare tint to the warmer colours with good effect.

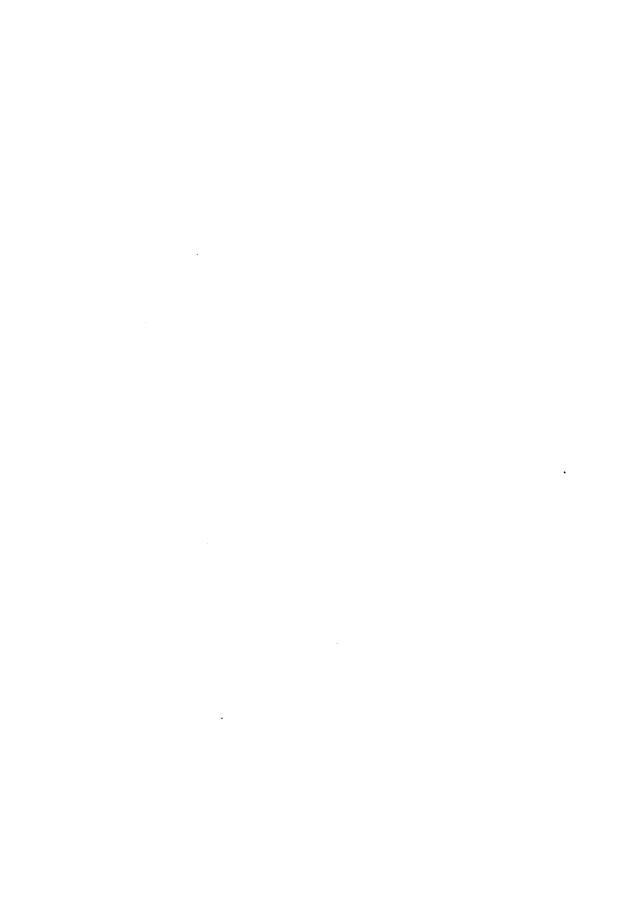
Salvia patens is a flower which is but too seldom seen, for its pure intense blue and habit of blooming throughout the whole season are both valuable in the border; it is of the easiest culture, and can be treated in the same way as the dahlias, for it is tuberous-rooted, as they are, and halfhardy. It is also easily propagated by seed, or by cuttings taken from the new growths in spring or summer; yet its simple needs are so little known that it is too often allowed to die in the cold wet soil of winter, when it should be kept dry and out of the way of the frost, starting it early in March in a greenhouse or a slight hot-bed, and planting it out in the middle of April, or later in a cold district. If protected with an inverted pot at night until the frosts are over it will quickly form strong growths, and produce its first flowers towards the end of June, just as the glorious spikes of the blue delphiniums are failing us. From that time until frosts cut it off in November Salvia patens will continue to blossom if well supported, and few plants can excel it in beauty of tint.

Amongst the flowers for August the Japanese anemones are useful, especially when left severely alone for years, and allowed to form great clumps of foliage and flowers. There are now many beautiful hybrids, such as A. japonica Queen Charlotte, in pale pink; Prince Heinrich, a double crimson flower; and Silver-cup, a semi-double white variety; as well as the older form, Honorine Joubert, a lovely single flower. Then there are the heleniums, of which the variety Striatum grandicephalum is one of the best, with apricot blossoms striped with crimson—a most effective flower in the early autumn, both for cutting and in the border; and a mass of rich mauve daisies are produced both in spring and again in September by Erigeron speciosum, one of the most floriferous of plants, which makes itself at home in any position.

FOURTH WEEK IN MARCH

ROSE REINE MARIE HENRIETTE

This rose is sometimes called the Red Gloire. It is robust and very floriferous, flowering early under glass. Climbing roses do better without much fire heat, and are amongst the finest of climbers for a cool greenhouse. They should have a free root run and be well pruned after flowering.







Rose Reine Marie Henriette.

CHAPTER XII

FOURTH WEEK IN MARCH

In the conservatory the pot roses are in blossom, and the climbing roses under the roof are very beautiful. They are kept quite free from blights by constantly syringing the young growths, but this must now cease for a while, as moisture quickly injures their delicate petals, and vaporising must be resorted to (should green fly make its appearance) until the blossoms are over, when syringing (always using tepid or lukewarm water) can again be safely carried out.

The principal pruning of climbing roses should be done as soon as the blossoms are over, cutting away each year some of the older wood and training the young growths in its

place.

Maréchal Niel, Reine Marie Henriette, and a few other fine roses require severe pruning. The shoots which have borne flowers should be shortened (as soon as the blooms are over) to half their length, soon after which new growths will start from the base of the plant, when the older wood should be entirely cut away, leaving only the strong shoots starting from just above the collar, i.e., the point where roots and stem meet. These strong growths should be carefully and separately trained under the glass (and at about 1 foot from it) in a horizontal position, when the result will be a mass of fine roses the next season. Old wood, when allowed to remain, only weakens the plant, and as this rose often makes shoots many feet in length, it is a mistake to fail to cut back the old wood yearly.

The roses in the borders (dwarf varieties) should be pruned during the last week of March or the first in April, accord-

ing to the season and the amount of shelter they obtain. It is scarcely possible to prune them too severely where one or two show blooms are desired, but, as a general rule, a large number of moderately-sized blossoms are more satisfactory, and in this case the roses should not be so severely cut back. The old or half-decayed wood should first be removed from the base, leaving the strong young growths of last autumn. These can be shortened to one-third or more of their length, always cutting close to a dormant eye (i.e. one which has not yet begun to grow) which is on the outer side of the shoot, as otherwise the shape of the plant would suffer. Roses which are robust and healthy need less pruning than those which are weakly, but all will be better for a mulch of rich soil now laid over their roots. Rank manure must never touch the roots of a rose, which are singularly sensitive to impurities, nor should it be heaped over the collar of the plant; but a little well-decayed manure, mixed with lime (or with burnt vegetable material, charcoal, and a little soot) should be placed at a slight distance around the stem (after loosening the surface soil), covering it with a little finely sifted soil for the sake of appearance. This will keep the roots moist and well nourished throughout the summer, and the newer plan of mulching both roses and strawberries in the spring will be found much more satisfactory than the autumnal mulch, which only adds to the dank coldness of the soil in winter, and soaks the roots in food which they are then unable to assimilate, being dormant.

The flowers so often seen in our streets are now very tempting; but it is dangerous to purchase the plants during a time of sharp east winds or frost, for they will very probably droop and die in a most disappointing way if they have received a chill, although the effects of it may not be apparent for a day or two.

At this time of year the blossoms of most of the plants offered for sale have necessarily been considerably forced, and the sudden change from the moist warmth of a hothouse to the bitter cold of the streets is too often fatal. Even if the weather should be mild, and they have so far

FOURTH WEEK IN MARCH

escaped this danger, it is necessary to take special care of forced plants so early in the season, for the dry air of a sitting-room (sometimes laden, too, with the fumes of gas) is very trying to plants, and this is often followed during the early morning hours by a cutting draught of freezingly cold air when windows and doors are necessarily opened to air the rooms.

Most modern houses, however, contain some safe corner for delicate plants at night. It may be a bathroom, with hot water laid on, which can be turned on for a few minutes to warm and soften the air before closing it, or some small glass erection—hardly to be called a greenhouse -which yet can be warmed with one of the excellent hotwater stoves which are now obtainable. Failing either of these places, it is possible to save our plants by arranging a common deal box in the kitchen (or any warm room), containing at the bottom a layer of moist, fine coal ashes, and being covered with a few pieces of glass. Into this modest night refuge the pots should go before gas is lit in the evening; the damp air contained in the box (which should be of a size to suit the plants to be sheltered) will refresh them, and they should be allowed to stay in it until the rooms are aired and warmed, when a few hours in a sitting-room will do them no harm.

Heaths and azaleas are specially in need of some such a refuge, for they are always impatient of a dry, heated atmosphere, and gas is rapidly fatal to them, their buds shrivelling away instead of opening, and their leaves dropping off when exposed to its effects; yet these beautiful flowers sell in large numbers in our cities, for they are so fresh and lovely that it is difficult to withstand the temptation to possess them. They need a moist atmosphere, and may be grown in a cool greenhouse if this is understood. In the case of azaleas syringing is constantly necessary to prevent the attacks of their special enemy, thrip; and this should be discontinued only when the buds begin to expand, until the blossoms are faded. Directly this takes place every bloom should be removed, for seed-bearing exhausts the plant greatly, and it is necessary to

pick off all the central seed-pods, taking care in so doing not to injure the new shoots just appearing at the side of the flower. Azaleas are usually purchased in very small pots, and as soon as the blossoms are over it will be necessary to give the roots more room. The roots should be thoroughly soaked in tepid water, and then turned out of the pot, when it will be found that they form a tight mass, which must not be interfered with, except to remove the drainage at the bottom of the pot. A clean pot (preferably an old one, which has been scrubbed inside and out and thoroughly dried), 2 inches broader at the top than the last, will be needed, and the compost should be of peat, with a little loam, leaf mould, and silver sand. Ample drainage (with one of Porter's wirecrocks below it) should be laid, covering the crocks with clean, dry moss. Over this a little of the rougher parts of the peat may be placed, and the ball of roots should stand on these, exactly in the centre of the pot, taking care that there is at least an inch to spare at the top of the pot for an ample supply of water. The finer parts of the compost should then be packed tightly round the ball of roots, without injuring them; a blunt stick or label will be useful for this work, and no vacuum must be left between the roots and the side of the pot. After covering the surface with fine sandy compost, it should be rammed down firmly with the handle of the trowel and made quite flat, after which the plant should be placed in a warm and moist atmosphere for some weeks until it has completed its leaf-growth, watering and syringing it daily. Just after repotting these plants, however, care must be taken not to overdo the watering, for there is a danger of rotting the fine, hair-like roots before they have had time to seize on the new food offered them, and if the compost is used when slightly moist (but not too wet) syringing only will be needed for the first few days, the moisture afforded by the ball of roots being soaked before repotting being sufficient for them.

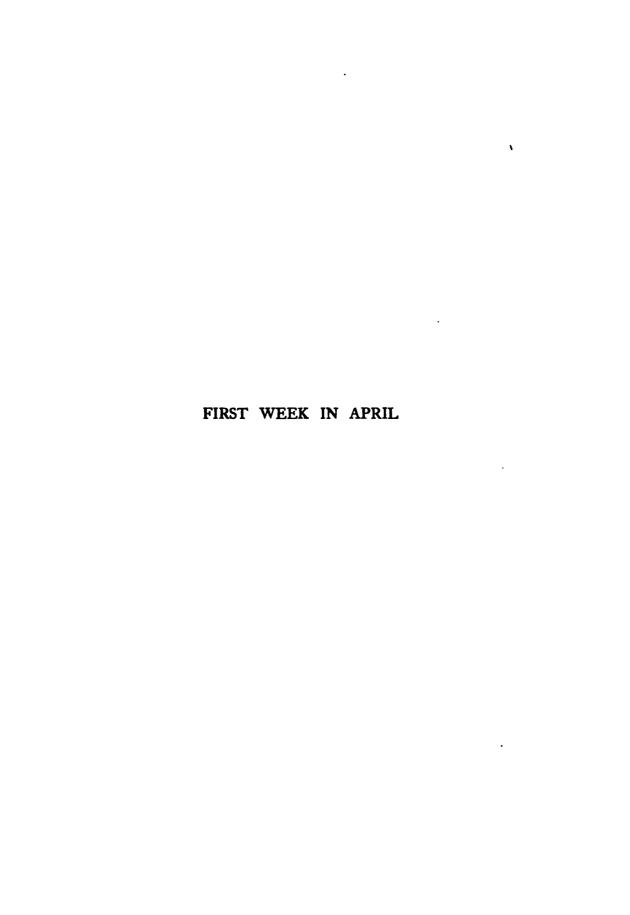
About the end of June azaleas and heaths should be placed in the open air, choosing a position open to the morning sunshine and sinking their pots in a bed of ashes, and there

FOURTH WEEK IN MARCH

they should remain—being thoroughly supplied with water every morning, and syringed every dry evening—until the end of September, when they will have completed the ripening of their new growths, and should be covered with embyro buds.

A moist position in the greenhouse (not over the hotwater pipes) will now suit them, and they will bloom early or late, according to the amount of warmth they receive. Heaths (ericas), rhododendrons, and other flowering shrubs which grow in peat may be treated on the same lines, such as epacrises, kalmias, Azalea mollis, as well as the crimson bottle-brush of Australia (Callistemon speciosus), tremandras, &c. Where blights give trouble, the plants should be placed on their sides and syringed—so as to reach the lower surface of the leaves—every few days until clean, using warm Sunlight soap and water, and clean warm water alternately each day for a week.





CHOISYA TERNATA AS A POT PLANT

This valuable shrub (the Mexican orange) is not only useful in the garden, but in the greenhouse and the window-box, as it blossoms profusely in a young state.





CHOISYA TERNATA AS A POT PLANT.

CHAPTER XIII

FIRST WEEK IN APRIL

"OH to be in England, now that April's there!" So sang Robert Browning from the orange-groves of Italy; and his longing was justifiable, for there is no more perfect weather than is to be found in our islands this month, whilst every green thing, newly wakened from its winter sleep, is endued with a freshness and morning beauty unknown in tropical climes. Even those who have no garden may enjoy something of this charm of spring if they throw open their windows to let in the scent of a boxful of wallflowers, daffodils, tulips, and primroses, now in full bloom.

The spring window-box may be treated for immediate effect in various ways. Sutton's wallflowers, sown last May, are now most beautiful, and the sturdy little plants (which were transplanted into a nursery-bed in July) can be raised with a small fork during showery weather, and used to fill a window-box, just as their first buds open. It is only a matter of keeping their roots thoroughly moist, and the ball of soil intact, to make them go on blooming as if nothing had happened; but in dry weather they should be abundantly watered before raising them and shaded for a few days afterwards. A double set of boxes is a great advantage for a window, as the plants can then be placed against a north wall after moving, but at this time of year rainy weather is usually by no means wanting. The turquoise-blue of the forget-me-not (myosotis) is in charming contrast to the warm tints of the wallflowers. and can be treated in the same way. Sutton's Perfection

is a very effective variety, and can be had in blue, white, or pink; Myosotis azorica is in deeper blue, and M. dissitifiora is the earliest of all to open its buds. We sow forget-me-nots yearly, so as to have turquoise edgings for the borders in spring as well as plenty of plants for the window-boxes, some of which are filled with daffodils, and others with tulips and hyacinths, raised from the garden just as they open their buds, so that there is plenty of scope for variety of effect. All these flowers are only in the boxes for a month or two, for the summer-flowering plants can be put in about the middle of May.

The small shrubs in pots, which were placed in the boxes in October, are now in full bloom, plants of Choisya ternata, with plenty of double pink tulips (Albano murillo or Salvator rosa) between them, being most effective. Another box displays the crimson-splashed foliage and primrose-yellow blossoms of Mahonia (berberis) aquifolia, with masses of early daffodils and an edging of forget-me-not.

Il faut souffrir pour être belle. This is the sad plaint which seems to arise from the tennis-lawn at this season, scarred as it is with patches of brown, where the daisies are dying. It seems rather cruel to destroy these little friends of our youth, now that daisy chains no longer charm; but the existence of a daisy in such a position, where its heads are cut off regularly twice a week by the mowing machine, can scarcely be worth living. February and March are the best months for weeding a lawn, and the work may be done by strewing lawn sand or waste salt on the daisies, in the proportion of 2 ounces to the square yard, though the dandelions and the larger plantains will need to be pulled up, or cut off as low as possible with a sharp old knife, placing a small lump of salt or lawn sand in the hole thus made, and filling it up with fine rich soil. The dressing thus given (for both lawn sand and salt are powerful chemical manures) will have the effect of strengthening the roots of the grass, which will soon again be verdant; but if the weeds have been many, it is desirable to sprinkle the scarred places now

FIRST WEEK IN APRIL

with fine rich soil and soot, with which a little good grass seed has been mixed, which quickly springs up in the showery weather of April, and the sward will soon again be a perfect carpet of green. Where moss is troublesome it should be raked away before mulching the grass. The special grass manures prepared for lawns will be found valuable in this case, as moss is a sign of the exhaustion of the soil. Bone meal, soot, and lime are also useful as a lawn mulch, mixed with finely sifted and rich loam; sulphate of iron, too, is desirable where the soil is deficient in iron. The most serious difficulties of all in the case of a lawn are the ravages of the grubs of the cockchafer and the daddy-long-legs, which cut the roots of the grass like a knife an inch or two below the surface; and these can only be prevented by the use of the roller at ten o'clock at night, when these insects come to the surface and are easily destroyed. The starlings, valuable under-gardeners as they are, prevent any such disasters in my garden, for their leader (who sits constantly on the highest point of the tallest chimney, chattering like a parrot to his mate) marshals his troop in the early morning on the lawn, where they may be seen quietly piercing the sward with their beaks in search of a breakfast of grubs. Sometimes they are startled by the human gardeners, when they all rise into the air in perfect order like a regiment, and perform their most clever evolution, in which, on the order of their captain, they seem to utterly disappear for a moment by means of a simultaneous sudden swerve, thus making themselves invisible. But they quickly settle down again on the grass, for my garden is well known in bird society as a perfectly safe place.

This is an excellent time to start a hanging garden on the roof, the balcony, or the leads of a town house. Very charming retreats may be obtained in this way, refreshing alike to the owner and those who pass by, for flowers are doubly welcome in a city. Boxes, to be painted in dark olive-green, and tubs of various sizes, from the half-cask to the "lard" tub, may be obtained very easily;

and, after having been thoroughly painted, can be arranged to suit the position, taking care to ensure thorough drainage by burning a few holes at the sides and at the bottom of the tubs and boxes with a red-hot poker. Wooden laths should be placed below each, to raise it slightly from the ground (also for purposes of good drainage), and the position chosen should be fairly sheltered from strong winds, with a south-east exposure, if possible, as this is less trying to plants in a raised place than that which obtains the full sunshine of the afternoon. The boxes and tubs can then be drained with broken brick, glass, earthenware, &c., covered with a layer of ashes, and filled with a mixture of good loam with a little leaf mould, well-decayed manure, and soot in small quantities;

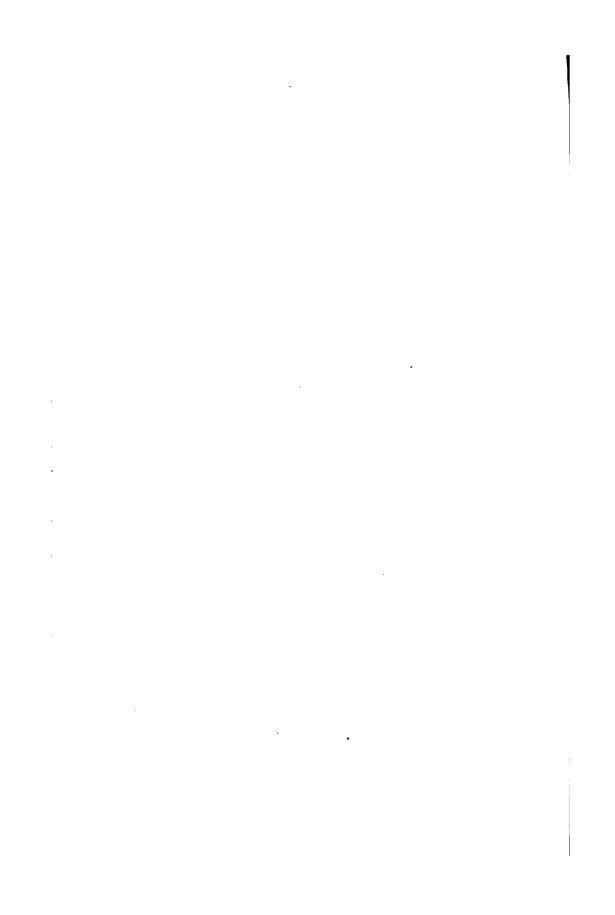
or jadoo may be used, needing no additions.

Lattice-work or wire netting may be added on the walls or at the sides for the sake of privacy, with long boxes in front of them to contain climbers, such as Cobæa scandens, Maurandya Barclayana, sweet peas, Tropæolum canariense, T. lobbianum, and nasturtiums, which climb quickly, and may be relied upon to cover vacant spaces. Tubs full of water can now be planted with water-lilies, in crimson, pink, white, yellow, &c.; other tubs should be arranged for bog plants, in which Japanese irises (Koempferi), spiræas in pink and white, golden calthas (marsh marigolds), water forget-me-nots, and many other aquatic plants will flourish, these water gardens being quite free from the attention of cats, moreover—a great advantage in hanging gardens. Water in abundance is necessary for everything growing in such a place, and a strong garden syringe should be constantly used to keep the foliage of the plants free from dust and soot, besides giving them ample supplies of water at the root every morning, and, in hot, dry weather, again in the evening, for the rapid evaporation which takes place when plants are surrounded by heated air has to be reckoned with.

A few good shrubs in tubs will be useful as background plants; these may be aucubas (of both sexes, so as to obtain

FIRST WEEK IN APRIL

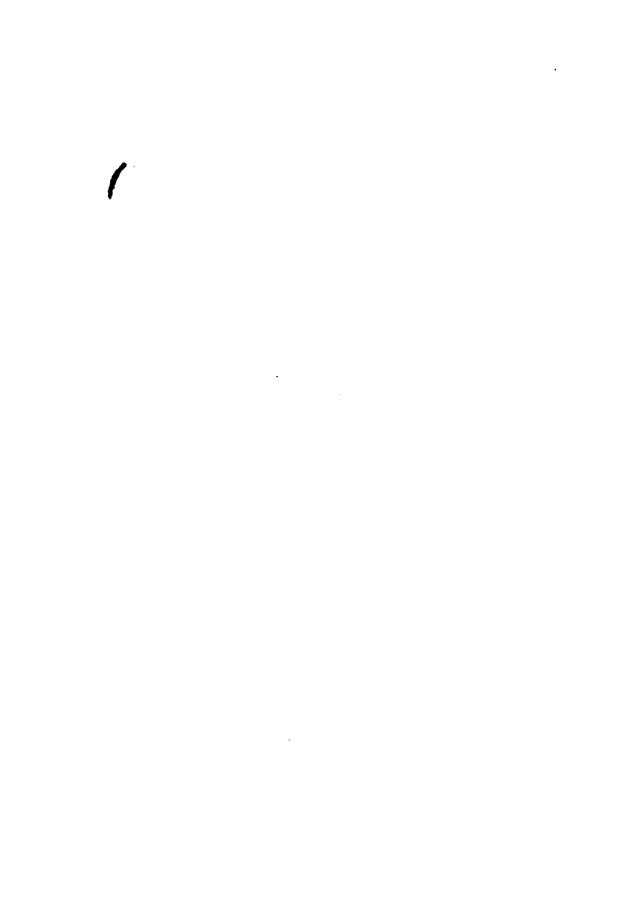
berries, for they are diæcious), Euonymus variegatus, laurestinus, lilacs, weigelas, skimmias, and rhododendrons, with myrtles if they can be taken into slight shelter during the winter. Seeds of mignonette, sweet peas, blue nemophila, dwarf and climbing nasturtiums, canary creeper (Tropæolum canariense), and other hardy annuals can be sown at once; and boxes can be filled with wallflowers, in rich crimson, brown, and yellow; forget-me-nots (myosotis), in turquoise-blue; dwarf tulips, raised from the soil just as their buds show colour; sweet williams of the new salmon-pink varieties, and daffodils, moved in the same way. Fortunately, many of our spring flowers can be transplanted at the moment that their first buds open with impunity, if they are raised with care whilst their roots are thoroughly wet, shading them for a few days and supplying them with plenty of water.



SECOND WEEK IN APRIL

SPIRÆA VENUSTA

The herbaceous spirms all need much water, and this fine variety in brilliant pink flourishes far more in a bog-tub than in the border or the greenhouse.







SPIRÆA VENUSTA.

CHAPTER XIV

SECOND WEEK IN APRIL

N a garden which contains no specially damp corner we find it a good plan to grow bog plants, as well as waterlilies, in tubs, which may be entirely hidden by sinking them to the rim in the soil, or placed at special points, covering the wood with a deep fringe of creeping jenny (Lysimachia nummularia), with its golden trails of bloom, mixed with the rich crimson-brown of Saxifraga sarmentosa (mother o' thousands), which produces its delicate lace-like runners far better in a bog than in a dry place. A cask (such as those used for paraffin), sawn in two, is well charred inside by burning shavings in it until all the oil which clings to the wood is consumed; the outside may then be painted a dark olive-green, and a cork should be fitted to the hole. This hole is, however, left open if the tub is to be entirely sunk in the soil, as some drainage is necessary in autumn and winter; even in the spring it may be desirable to draw off the water occasionally, half-filling the tub again in a few The lower 6 inches (the tub being 2 feet deep) days' time. is then filled with broken crocks and cinders, covered with a layer of clean moss, and on this rough pieces of peat are placed, with an abundance of charcoal sprinkled over it. The 10 inches above the peat is filled, at the time of planting, with the soil most suitable to the plant; for instance, where clumps of bog irises are grown, rich, ordinary loam will be used, whilst many plants will prefer a mixture of peat and loam. The upper surface of the bog is covered with sphagnum moss, which, if the tips are inserted, will take root in the soil.

Some of the tubs contain the splendid Japanese iris (Kæmpferi)—sometimes called the king of the irises—in white and a variety of rich tints. Other tubs contain the spiked Lobelia cardinalis, which enjoys more water than it usually obtains in a border, but is not quite hardy in cold districts; also the graceful fronds of the Royal fern, Osmunda regalis, with the still finer North American varieties, Osmunda Claytoniana and O. cinnamomea, which are equally hardy. These ferns make a fine centre to a group, and can be surrounded by flowering plants, such as the beautiful terrestrial orchid of Canada, the mocassin flower (Cypripedium spectabile), with pink and white slippers, with C. acaule and C. pubescens, all lady's slippers in different tints.

Arum lilies, too, will bloom in summer in the open air in Devonshire, if retarded by planting them the year before, and these are very effective: Marsh marigolds (Caltha palustris), especially the new double variety, C. monstrosa plena, are conspicuous with their golden yellow flowers; and the lovely Himalayan poppy (Meconopsis Wallichi), with large pale blue blossoms and handsome foliage, loves a shady, moist place. Many smaller, but interesting, bog plants are found on Dartmoor, such as the bog bean, the water-violet (Hottonia palustris), the grass of Parnassus (Parnassia palustris), the water forget-me-not, and the curious little insect-eating tufts of the sundew, Drosera These we bring home from their native rotundifolia. haunts and plant in our bogs, where they flourish so greatly that a considerable amount of weeding is necessary to protect some of the weaker plants from the inroads of the more robust.

Of the hardy orchids which enjoy a bog (and should be planted in March), the cypripediums (Lady's Slipper orchids) are the most beautiful, especially the moccasin flower of Canada (C. spectabile) and C. acaule, in dull crimson. C. pubescens, in brown and yellow, is a quaint flower, like a well-trimmed moustache; and C. californicum is in white and yellow. These terrestrial orchids prefer a moist, shady

SECOND WEEK IN APRIL

spot, well drained, however, in winter; they bloom in May, and should be grown in a tub which is not sunk to the rim in soil, as they are specially liable to the attacks of slugs and snails, and need much vigilance in the early spring to save their tender growths from these marauders. The best protection which can be afforded them is to surround them with a band of perforated zinc, about 6 inches high, which should enter the soil to the depth of 2 inches. None of the slimy tribe will venture to touch this barrier, for zinc gives out a poison when in contact with moisture. The band should be made into a circle by means of fine wire, and may be of any convenient size, from 4 inches in diameter to the circumference of the tub, inside the wood-work.

The cypripediums above mentioned all prefer a semishade, being usually found in woods in their native places and in moist positions. They are covered with snow for months in Canada, and so escape the effects of the severe frost; it is desirable to protect them in our winter climate with a conical pile of fine ashes, about 6 inches high, placed over their roots in November, and the bog should be allowed to become fairly dry until March, when growth begins.

Another singular bog plant is the huntsman's horn (Sarracenia purpurea), a pitcher plant from North America, with curious blood-red leaves forming horn-like pitchers in a close tuft about I foot in height; it should have a compost of fibrous peat and chopped sphagnum moss, and the tips of this moss (cut off whilst it is alive and fresh) should be laid over the roots of the pitcher plant to keep them thoroughly moist, where the moss will take root, if well watered, making a good contrast in tint to the crimson pitchers.

S. flava maxima is a pitcher plant which is hardy enough to do well in the open air during the summer months. The large flowers of this sarracenia are in bright yellow, and the leaves form pitchers marbled with crimson, into which a quantity of flies and other insects will be attracted. The droseras (sundew), too, are fly-traps, the surface of their leaves being covered with a hairy mass, in which

insects are entangled. D. rotundifolia is one of the easiest to cultivate, and D. filiformis (from North America) is far more difficult to grow, though handsomer than our British droseras. They all require to be surrounded by living sphagnum and kept thoroughly moist, for they will not grow without the help of this moisture-holding moss.

One of the most effective of bog plants is the marsh marigold (Caltha palustris), producing a mass of deep golden flowers in May, which are sure to do well if allowed to form a fine clump in a thoroughly moist position. The new variety, with large flowers (grandiflora), is a great improvement on our native wild plant, and the double form (Caltha palustris flore-pleno) is also very handsome. Slugs leave this plant alone, which is a great advantage where these troublesome creatures abound.

Then the herbaceous spiræas do far better in this way than in any other, and the effect of the bright pink plumes of S. palmata and S. venusta when in blossom is very good. Our own native meadow-sweet (Spiræa ulmaria) is lovely, too, in creamy white, and both may be grown together with

advantage.

S. astilboides, too, which is often grown in a pot, is seldom seen to such advantage as when planted in a tub, when it forms a dense mass of handsome foliage, every point of which is crowned with a spike of feathery white bloom. A fine new variety of this plant is S. japonica coccinea, with pink flowers; and, in fact, all the herbaceous spiræas enjoy having their roots thoroughly supplied with water, so that the grand growths of S. aruncus (like a magnified plant of S. astilboides in appearance) will rise to the height of 6 feet in this way.

The hardier azaleas can be grown to perfection in a thoroughly moist position, and for this purpose the beautiful hybrids (called Ghent azaleas) are most suitable, for they are extraordinarily floriferous, in many shades of yellow, cream, and pink, yet so far they are little known. Anthony Koster is one of the finest of these, in golden yellow; Emil Liebig is in salmon-red; Veronica Concordia is in delicate

SECOND WEEK IN APRIL

apricot, blotched with orange; Peter Koster, deep orange; Alma Tadema is in pale pink; and Madame Anthony Koster in shades of apricot and salmon-pink, a very richly tinted flower. These are hybrids of Azalea mollis × sinensis; the taller hybrids produced by A. mollis × pontica are in some cases inclined to majenta in tint, but Monsieur Desbois, in carmine, Dulcinée, in orange-red, and Frère Orban, in creamy white, are all thoroughly free from this defect. The Japanese azalea (mollis) is itself quite hardy, and semi-aquatic, so that it makes a grand show when planted in a moist position; it is, however, better to regulate the supply of water for these plants in winter by burning a hole in the wood (with a red-hot poker), which can be filled with a cork.

THIRD WEEK IN APRIL

NYMPHÆAS LUCIDA AND GLORIOSA

Hardy water-lilies in many shades of crimson, yellow, pink, and white, are easily grown in tubs, sunk to the rim in the soil or the sward. These fine hybrid Nymphæas are too easily choked by coarser plants in a lake, and should be grown separately.







CHAPTER XV

THIRD WEEK IN APRIL

SPECIALISING in horticulture, as well as in other pursuits, has its undoubted fascinations, and the study of one special subject is perhaps the best way to learn it perfectly, and therefore to enjoy it most thoroughly. Water gardening has not, however, hitherto received its due attention, for few of us possess lakes, or even ponds, in which to grow aquatic plants, and it is scarcely yet realised that these places are quite unnecessary, and that those even who live in a city and have no gardens may yet cultivate these beautiful flowers; in fact, they may be grown anywhere by any one who has the necessary knowledge of their needs.

Although broad sheets of water are most beautiful when well planted, they are seldom shallow enough for the roots of the new crimson and pink lilies introduced by M. Latour-Marliac (the loveliest of all the hardy nymphæas), but these can be grown each one separately in its own tub, without encountering the many troubles from water rats, dogs, currents in the water which bare the lily roots, the pressure of more vigorous plants, and other dangers which have to be faced when these exquisite flowers are hazarded amongst the mass of water plants. Tanks or small ponds, too, can be constructed where convenient, of stone or brickwork lined with cement; but these should not be more than 2 feet 6 inches in depth, and if the sides can be made to shelve gradually in 6-inch terraces, they will be more convenient for planting the smaller nymphæas, which must not be sunk These plants love the sunshine, so too deeply in the water.

that a south exposure may be selected; but it is possible that the heat of a terrace or on the leads may be excessive occasionally, unless the tub be sunk in the soil or the sides covered with virgin cork or rockwork, in which trailing plants may be grown.

An empty cask which has contained paraffin will make two tubs of a convenient size if sawn in half; and these must be thoroughly charred inside by burning sticks or shavings in them, until the whole of the interior is black and all trace of the oil is gone. The tub should then be filled with water to test this; and if there be no trail of paraffin on the surface in a week's time, the work will have been well done.

The nymphæas must be planted as soon as they arrive, or else immediately plunged entirely into water for a few days; it is, therefore, desirable to make all necessary preparations beforehand. At the bottom of the tub or tank an inch or two of broken crocks mixed with lumps of charcoal should be placed, and on this a layer of turfs with the grass side downwards, then a layer of decayed oak-leaves (or other leaves where these are not procurable), and on these a compost of good rich loam (without fresh manure, however), in which the lily is planted, placing a few flat stones around it to make it firm in the soil, and the surface may be covered with sand or gravel if preferred. The water (which should be tepid) should then be added immediately, using a rosed can for the purpose, from which the water should trickle against the side of the tub, so as to avoid any disturbance of the soil, filling the tub thus gradually. Unless special measures are taken to keep the water pure, it will become thick and foul within a few weeks; but this difficulty is best remedied by the introduction of a few newts (two or three for each tub), these useful little creatures acting as the most thorough scavengers of the water, so that, if they should be placed in a tub which contains thick water, they will clear it entirely within a few days. Once established in the tubs, the newts (Triton cristatus) propagate themselves, and seem to thrive; those in the writer's

THIRD WEEK IN APRIL

water gardens having kept the water perfectly pure for some years without any need of changing it, the water which is lost in evaporation in summer being, however, returned to the tubs when necessary through a rosed can.

This simple remedy completely obviates the necessity of an elaborate system of waterworks to change the water continuously, which used to be considered necessary for a water garden; and perfectly still water suits the nymphæas far better than any current in it, which tends to bare their roots. Newts can be found in all still pools, and are not difficult to secure by offering a few pence to a country lad

to bring them.

If well planted in spring (the end of April or the month of May being the best time for the purpose) nymphæas will need but little attention; they usually begin to bloom in June, and continue to produce a succession of their lovely flowers until the cold of autumn checks them; but the nymphæas originally obtained by M. Marliac, through the hybridisation of hardy yellow and white water-lilies from North America and Siberia with the richly coloured nymphæas of the tropics, have fortunately proved thoroughly hardy, although they follow their exotic parent in brilliant tints. Never before have we been able to possess hardy water-lilies in crimson, orange, and many shades of delicate pink and yellow—flowers, too, which are set off by richly tinted foliage on the surface of the water.

During the second season after planting nymphæas it is not often necessary to raise and divide the roots; but a layer of fresh loam mixed with charcoal should be added over them. If the water should contain the germs of confervæ (the thick green mass of water-weed which sometimes appears in it), it will be desirable to add a few water snails to the contents of each tub, as these creatures clear off the green slime, but do not attack the water-lilies. They propagate themselves, however, so quickly that it is often necessary to thin their numbers by removing most of them.

Amongst the most beautiful of the newer water-lilies we

may select, perhaps, a dozen of remarkable loveliness, some of which (as Nymphæa lucida) will throw their starry blossoms above the water, whilst others float upon the surface. An interesting peculiarity in these plants is this—that the flowers open daily for about five hours, during four successive days, each time the opening blossom being larger and more brilliant in tint; they then close for ever, looking again like buds, until they decay or are removed.

N. lucida is in delicate shades of salmon-pink, deeper in the centre, the blossoms being held erect about 6 inches above the water; it is a vigorous plant, with foliage marbled in brown; flowering during the whole season. N. gloriosa is a large and very handsome water-lily, about 8 inches across, in rich glowing crimson, with a copper-red central tuft of stamens adding greatly to its beauty. N. atropurpurea is even darker in tint, with bronze foliage; but the blossoms are not quite so large as those of N. gloriosa. N. odorata sulphurea grandiflora is the finest of the yellow varieties, the petals shading from pale primrose on the outer edge to rich golden yellow in the centre, the foliage being blotched with crimson-brown. N. fulva is in terracotta-red, with spotted leaves; and N. aurora is most delicately coloured with the tints of the morning sky, the flowers opening in pale apricot, which is daily more heavily flushed with carmine until the flower closes. blossoms of this lovely flower are not very large, but can scarcely be surpassed in richness and delicacy of tint. Amongst the white nymphæas Caroliniana nivea and Gracillina alba are excellent, both being fragrant (as, indeed, most of these water-lilies are). There are also lilies in blush-pink, such as N. arc-en-ciel, a plant which is distinguished from all others by the extraordinary beauty of its leaves, which are tinted—when they first unfurl on the water—with brilliant carmine, apricot, and crimson, like those of Ampelopsis veitchi in autumn, making a delightful contrast to the creamy pink blossoms. N. colossea is a large fragrant flower, in flesh-pink, with green leaves; and N. ellisiana is one of the most brilliant in colour, being

THIRD WEEK IN APRIL

almost vermilion in tint; whilst the blossoms of N. Paul Heriot are in pale pink flushed with carmine in the centre, like those of a blush-rose.

The tiny white flowers of N. pygmæa alba, a species from China, can be grown in very shallow water, as well as those of N. odorata alba, with blossoms about 3 inches across; these are suitable for a summer balcony or verandah, and should be given slight protection during the winter in any place free from frost.

The beautiful blue water-lily of tropical South-West Africa has hitherto resisted all the efforts of the hybridisers to induce it to produce a hardy hybrid, and therefore the cultivation of this plant is much more difficult, needing, as it does, water of the temperature of about 72° throughout

the year.

A very interesting paper on this nymphæa (cœrulea) and its varieties was read some years ago by Mr. James Hudson, V.M.H., before the Royal Horticultural Society, giving full particulars for the cultivation of blue nymphæas, in which he has been so highly successful. N. stellata, of which the Berlin variety appears to be one of the best, is extremely vigorous, requiring an extra depth of water in its tank, around which small hot-water pipes should run to supply the necessary warmth to the water; the roots of this plant also are said to be the better for a resting-time in dry sand during three weeks in January, after which they are started afresh, each in a separate pot, submerged in a pan of warmed water. About the end of April they should have made sufficient growth to be planted in the special tanks prepared for them, which stand in the open air, each with a covering of glass, by which the temperature can be regulated by opening or closing the ventilators as required. These glass coverings are, it seems, removed entirely in the height of summer, unless the position of the tanks is exposed to high winds, which injure the flowers, blowing them almost out of the water.

The blossoms of the blue water-lilies are star-like, raised above the surface of the water like those of N. lucida; but

the plant is altogether taller and very vigorous. N. pulcherrima is probably a hybrid of American origin, with flowers of a darker shade of violet-blue than that of N. stellata; and is a strong and robust plant, well suited for a

first trial in growing these difficult subjects.

Besides these water-lilies there are other aquatic plants which may well be added to a water garden, one of the best of which is the new and fine form of Aponogeton distachyon (the Cape pond-flower), which has been introduced by M. Latour-Marliac. This is handsome and distinct, with fragrant white flowers of singular form, which are produced for many months in succession, and oblong leaves floating on the surface of the water. It should have a separate place from the water-lilies, if possible, as it is apt to smother them with its rampant foliage. Arum lilies (Richardia æthiopica) may be grown in water, and will blossom in the summer, when they have had time to accommodate themselves to the change of seasons. Sagittaria sagittifolia (the arrow-head) has handsome three-cornered leaves and pale pink flowers; and Butomus umbellatus (the flowering rush) is a stronggrowing plant with rosy lilac blossoms. These plants are, however, too large and too vigorous in the work of reproducing themselves to be safe neighbours for the smaller water-lilies, although they associate well with our own fine white Nymphæa (syn. Castalia) speciosa, a plant which may be trusted to hold its own with any other rampant aquatic. In fact, it is not desirable to add this fine water-lily to a collection of hybrid nymphæas, except in a separate position, as it will quickly seize the whole available space, and increase so rapidly that it has been known to choke the waterway of a canal within a few years from the time of planting. a lake or a large pond it is most effective, the flowers being 10 inches across. N. lutea, the yellow water-lily of Britain, is also handsome, but both are most suitable for wide spaces and positions in which extra robust plants are necessary.

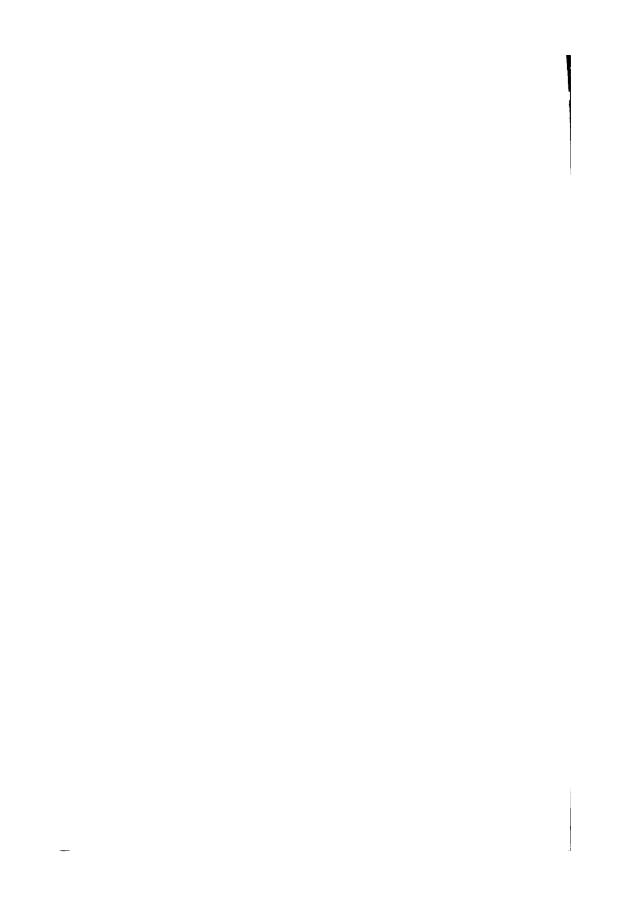
The surroundings of a water garden should be made as beautiful as possible. Small ponds, tanks, or tubs can be sunk in the grass when in a garden, and many beautiful

THIRD WEEK IN APRIL

shrubs can be added between or around them. Rockwork or virgin cork may be used to conceal the woodwork where it is not possible to lower it into the soil; or groups of such handsome shrubs as rhododendrons, myrtles, hardy azaleas, Aucuba japonica, &c., in tubs, with flowering plants in pots, can be arranged with them. The outside of the tubs should in this case be painted a dark olive-green, and trailing plants—creeping jenny (lysimachia), blue lobelia, tropæolums, &c.—may be grown to hide the larger pots on a balcony or on the leads of a town house.

Where the water garden is a lake or any natural sheet of water, the margins should be planted with semi-aquatic plants, such as calthas (marsh marigolds), spiræas in variety (both in pink and white), Japanese and other bog irises, rhododendrons, spiræas, and many other plants which need a moist situation.

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SUMMER-FLOWERING GLADIOLI

The tall spikes of these bulbs, in many rich shades of pink, carmine, and scarlet, are most valuable additions to the borders throughout the summer; the different groups, Lemoinci, Kelwayi, Childsii, and Brenchleyensis gladioli, blossoming in succession from June till September.







SUMMER-FLOWERING GLADIOLI

CHAPTER XVI

FOURTH WEEK IN APRIL

THE rock border is now very gay with hanging, snowy masses of Arabis albida, purple aubrietia, too, wallflowers in many rich shades of colour, anemones, tulips, and the gold-dust plant (Alyssum saxatile), contrasting delightfully with the purple as it mingles with the aubrietia. The new double-flowered variety of arabis is a great improvement on the original single blossom, but it opens its blooms a few weeks later than that flower, so that both may be grown with advantage, for we should not like to miss the first promise of bloom, which shows on the original arabis in February sometimes. Both are easy plants to grow, and can be increased by cuttings or division of the roots, but, when once established, they should not be much interfered with if long trailing masses of blossom are required. Aubrietia (the purple rock cress) is another member of the cruciferæ which should be in every garden; it is easily raised from seed in slight warmth, and the seedlings should be pricked off into boxes of light soil whilst quite small, planting them out in October; and alyssum is grown in the same way. Cuttings of arabis and aubrictia should be taken directly after flowering, placing them in light sandy soil, in a cold frame or under a hand-glass.

Amongst the permanent plants in the rock border, the intense blue of Gentiana acaulis (gentianella) is conspicuous, a plant which should not be unnecessarily disturbed when once established (for it is decidedly capricious), but requires a slight mulch of rich soil each year in spring to do well, The brilliant scarlet of Anemone fulgens, too, is noticeable,

and the lovely dwarf anemone from the Apennines (A. apennina) forms a sheet of soft blue, preferring a rather shady position. Various spring bulbs, too, are pushing up, such as the early-flowering gladioli (the Bride, &c.), which often do better in a well-drained rock border than elsewhere in a heavy moist soil.

This is the time of tulips. Van Thols, of course, are over long ago, with the rest of the early flowering varieties, which will bear a little forcing; but the garden is now bright with dwarf single and double tulips, whilst the curious blossoms of the dragon or parrot tulips, in richest tones of crimson, green, and yellow, and the long-stemmed May tulips, will carry on the show for many weeks with masses of rich King of the Yellows, Cottage Maid, in carmine and cream; Proserpine, rich salmon-pink; Joost von Vondel, silvery white; Silver Standard, striped crimson and white; and!Prince of Austria, in glowing orange, are amongst the most telling of the single tulips; whilst Lady Palmerston, in rich pink flushed with apricot in the centre, is a very beautiful double variety, with Salvator Rosa in deep pink and Albano Murillo, in paler pink tones, and Blanche Hative, in pure white. Fireball is a fine scarlet variety; Yellow Tournesol and Velvet Gem, in deep crimson, edged with yellow, are all good, but they lack the delicate beauty of the pink varieties, although gorgeous in colour. When grown under glass, double tulips need to be kept very cool; anything like strong forcing will make the buds shrivel away instead of opening, but for a cool greenhouse or a glass porch without fire heat they are very beautiful early in March, although seldom quite so sturdy in growth as those which bloom in the garden in April.

The old English May tulips are quite as effective, especially when grown in broad, irregular masses in the herbaceous border, Gesneriana, an enormous flower, in the most glowing crimson scarlet, with a blue-black centre; Bouton d'Or, golden yellow; Picotee, creamy white, edged with carmine; White Swan, and the rich maroon of the Sultan being a good selection. The bulbs should not be

FOURTH WEEK IN APRIL

disturbed after blooming, if possible, as that is the time which all bulbs employ to produce the embryo of the blossom for next season, and the gradual ripening away of the foliage is necessary during this operation, so that by depriving a bulbous plant of its leaves (either by withholding water or cutting them off), we make it impossible that any blossom should be forthcoming the following season. Where it is necessary to raise the bulbs of tulips after flowering in beds —in order to put in summer flowering plants—the bulbs should be replanted in rows in a sunny position with good soil in the kitchen garden; each bulb being placed 6 inches from the next, after cutting off the dead blossoms and seedpods, for those exhaust the bulb. The tulips should then be left undisturbed until eighteen months have passed; when, in October, the bulbs may be raised and sorted, those which are large and firm being again available, whilst the smaller bulbs can be returned to the soil.

The summer birds are coming back; the little yellow chiff-chaff arrived a week ago; the swallows will soon be on their way, and the cuckoo, too, which usually reaches us about the 18th. Now comes in the "sweet of the year"; and the birds, forsaking the semi-tropical heat of the Mediterranean shores, fly north in time to share it with us:

"Oh! every heart hath its sorrow,
And every heart hath its pain,
But a day is always coming
When the birds go north again.

"Tis the sweetest thing to remember, If courage be on the wane, When the cold, dark days are over Why—the birds go north again."

The spotted fly-catchers, which built last year in a tiny tray provided for them in the angle of the rose-arch on the terrace, have arrived, and are busily constructing a new nest in the same place. Last year they had a narrow escape from the cat, which was caught in the act of climbing one of the fir-poles; but we then cut a quantity of holly branches,

which were tied around the poles at the height of 3 to 6 feet from the ground. This prickly obstacle effectually checked the marauder, for cats do not care to encounter prickly plants. Fly-catchers are most valuable birds to encourage in the garden, as well as very interesting to watch; they always select some post or other point of vantage, from which they dart on their prey continually, and as they eat nothing but flying insects their work is most desirable. They are pretty, slim little creatures, with whitish breasts spotted with brown, and always return to the same spot in the spring from which they emigrated to warmer climes in the autumn.

There is no season of the year without its special group of flowers; and the spring is pre-eminently the time when bulbous plants, provided as they are with the means to take a long rest in safety, again waken into life with the increas-Snowdrops, crocuses, hyacinths, narcissi, and ing warmth. tulips are, indeed, with us throughout the winter, either in the garden or under glass, and there are some of the beautiful iris tribe which will brave the cold, although these are not so often seen. The rich blue shades of Iris histrioides, too, are very early in the garden; this is a bulbous iris, as also is I. reticulata, a spring flower scented with the perfume of the violet, which can be grown either in a cool greenhouse or in the open border. I. persica and I. alata are charming in pots, but are too dwarf to do well in the winter garden, their blooms being so easily damaged; but I. sindjarensis, with azure blue flowers on tall stems, is a delightful bit of colour in the April garden, and should be grown much more extensively than it is. The brilliant blue of the dwarf scillas (bifolia and sibirica), too, is most welcome amongst the yellow flowers of early spring, with Chionodoxa sardensis, each blossom starred with silvery white; and the grape hyacinths, both Muscari azureum, a very early variety, and M. cœruleum (var. Heavenly Blue), are very beautiful in colour. These, with the Italian hyacinths in white, blue, and pink, bloom better in the garden than in pots, increasing in number and strength in a light warm soil. They are also

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excellent bulbs for naturalising in half-wild spots, their elegant flowers (with our own bluebell, Scilla nutans, and its pink and white varieties) doing well in such a place, and mingling delightfully with the rich tints of the daffodils, which bloom at the same time.

Triteleia uniflora alba blossoms about the middle of April, producing a mass of blossom 2 inches across, in white with a violet throat, when well established. The foliage of this plant (which belongs to the order Liliaceæ), is grass-like, lying rather flat on the ground, whilst the flowers are erect and decidedly effective in the garden, making a fine clump if left alone for a few years, for it is quite hardy. The purple variety (violacea) is even earlier than the white in opening its blossoms; the deep blue triteleia (T. laxa maxima) is handsome, but not quite so hardy as the rest.

Ixiolirions blossom in May, and their graceful flowers, in various shades of amethyst blue, are excellent for cutting; and I. ledebouri has large white flowers. They are natives of Tartary, and do well in a warm, sunny border, protected from winter rains in the same way as recommended for ixias, to which, however, they are not at all related, for they are not irids, belonging to the Amaryllidæ; the bulbs should be taken up in October if grown in a cold district, planting them again in March.

Gladioli of the summer-flowering section (Kelwayi, Gandavensis, &c.) should be planted in March or April; they add greatly to the beauty of the garden in July and August. Many fine varieties have been raised by our specialists in these gorgeous flowers, amongst which the Langport hybrids are pre-eminently beautiful; Hannibal, Eugene Sandow, and Lady Crewe being a few of the finest varieties.



FIRST WEEK IN MAY

THE ENTRANCE TO THE WILD GARDEN

A group of white foxgloves (Digitalis maculata being the finest variety for the purpose) stands well against the greenery. The seeds of these plants are sown in May, pricked out in a nursery bed in July, and placed in flowering position with rich soil in October.





CHAPTER XVII

FIRST WEEK IN MAY

RARLY in the morning (which, pace Browning, begins at four, not seven, by this time), before the sun rises, we may hear the birds' Overture to Spring.

First of all there is a soft susurrus of many wings, mingled with low whispered notes from the waking birds, like the tuning up of the instruments, which quickly swells to a volume of sound from all the birds in the garden.

Then the thrush, which builds in the honeysuckle below the window, starts his solo, accompanied by the rest as a chorus, trying first one and then another phrase, and calling loudly for *Philipine! Philipine!* from the topmost bough of the fir-tree—

> "Lest we should think he never can recapture His first fine careless rapture."

Individual thrushes vary greatly in the beauty and richness of their song, but all possess many pure and liquid notes. There is a bird which sings from the woods in the valley below (probably a scarlet and green woodpecker, for there are many in that glen) with a song like falling water poured from a height; the wood-doves, too, add their gentle notes, and the blackbird's deep trill is noticeable amongst the many distinct notes in the concert.

Probably the whole overture is played by the birds which have roosted on some branch near the nest where the motherbirds cover the nestlings with their wings, and these young things do not awake quite so early in consequence; but the

music and the rising sun soon rouse them, and in half an hour the concert is over, for the parent birds have begun their long day's work of providing for the wants of their

families, and are then too busy too sing.

Robins, with their large full eyes, are the earliest of all to awaken, and also the latest of the birds at night to be about, for they are almost like little owls in their power of seeing things in the dusk. My tame birds come into the darkened room before it is fully light, through the open window, and fly across to the plate of biscuit crumbs which stands ready for them by the bed; for if their early breakfast is forgotten, there is no peace until they obtain it, filling their beaks with much food for their hungry nestlings from the hand or the lips of their friend. Chaffinches, too, and the exquisite little blue-birds (tomtits) come in a little later, but the robins are always the first to arrive.

In many a garden there is a spot where wild flowers grow undisturbed, a corner which is more or less their own, in which they can flourish in safety from the spade of the gardener; perhaps a small wood, or a shady, out-of-the-way position quite unsuited to most of our garden plants. Yet here we may make a delightful little retreat from the summer sunshine, where we may bring our books and our work, with a lounging chair or two; or perhaps a hammock can be suspended between two trees. There is a sense of rest in such a place which is not always present in the most perfectly ordered parterre, for—

"We may read And read again, and still find something new, Something to please, and something to instruct, E'en in the noisome weed."

But all wild flowers are not "noisome"; far from it, indeed, are the primroses, the white violets, and the bluebells, which now abound in the half-wild garden, where the great spikes of foxgloves are pushing up, and the little blush wood anemone—reinforced by the small blue variety from the Apennines—flings broad carpets of delicate tints under

FIRST WEEK IN MAY

the trees. Many beautiful flowers may be added to the wild denizens of such a place; yet taste and discrimination will be necessary in doing this, for it is easy to spoil the beauty of a wild spot by formality, and semi-tropical plants are quite unsuitable for such a place.

Daffodils, scillas, and snowdrops, for instance, may be scattered far and wide, and will be most beautiful here in spring; yet any attempt to plant them in lines or at set distances will be fatal to the right effect, for Nature never works in this way, and we must keep our own stiff ideas out of this corner of the garden. Wild roses and sweetbriars (such as Lady Penzance, Lucy Bertram, and others of the hybrids introduced by Lord Penzance) are quite at home here, however, for they object to the knife of the pruner, and never look more lovely than when allowed to throw long sprays of blossom where they will. Honeysuckles, too, will add their rich fragrance, and both may be induced to form a shady bower with very little training.

A very handsome plant for a position where colour is wanting is the Crown Imperial (Fritillaria imperialis), a member of the lily family, which is quite vigorous enough to take care of itself, and will flourish best when left alone, if planted in autumn with deep digging and good loam. The flowers are either golden yellow (aurea) or red (rubra) and there are double and single varieties of each. F. i. rubra maxima is perhaps the finest form, with large red flowers.

Japanese anemones (Anemone japonica) in white and pink, grouped with large British ferns, are quite at home in a half-wild corner, for they dislike any disturbance of their roots; lilies-of-the-valley, too, will flourish in the shade.

This is an excellent time in which to put in cuttings, especially of such shrubs and climbers as produce new wood early. These half-hardened shoots, about 3 inches long, strike easily in pots of sandy soil, which should not be too large, a 4-inch pot taking as many slips, each with a slight heel of the older wood. The leaves should be cut off (a pair of small, sharp scissors being the best implement for this work) about half the length of the shoot, and this should be

made quite firm round the edge of the pot by pressing the soil with the thumb in the middle, so as to make sure that the "heel" is firmly held against the pot. The soil should be concave in the centre of the pot, to avoid too much moisture around the stems of the cuttings. These must never be allowed to droop, nor yet should they be deluged with water when already moist. The best place for ordinary cuttings is a cutting-box-i.e., an ordinary deal box, with 2 inches of moist, fine ashes at the bottom of it and a piece or two of glass to cover it, for the conditions under which slips do best are that they should stand in an atmosphere moist enough to support their foliage whilst they make a push for life by throwing out roots at the base. Some slips, however (these being usually better than cuttings proper), need more heat than others during this process; but fairly hardy or half-hardy plants may be induced to take root in May and June in a greenhouse, or even in a south window, where the sunshine, striking on the side of the box, will warm the interior sufficiently. No sort of debris must be allowed to remain in the cutting-box, as this is sure to be seized upon by mildew; and air should be given, even at the first, at the corners of the box, increasing the amount as the slips progress, until they can stand in the free air with impunity, having formed their roots, after which the young plants should be potted up separately, returning them to the shelter of the cutting-box for a few days until they have recovered the shock. In this way the largeflowered clematises, honeysuckles, deutzias, libonias, genistas, carnations, myrtles, and many other ordinary things can be propagated in spring (even slips of roses which have been forced for early work) which will grow quickly into flowering plants. But there are some succulent things, such as cacti, kalanchoes, begonias of the tuberous varieties, crassulas, &c., which do best without a box, striking root in pots on the shady shelf of a greenhouse; for they, as well as zonal pelargoniums, are well supplied with a store of moisture in their tissues, and therefore require nothing more to support their foliage whilst without roots. These require

FIRST WEEK IN MAY

little or no water in their earlier stages, their great danger being that they may become rotten from excess of sap; in fact, in the case of cacti, it is desirable to dry the cuttings for a few days before putting them in. Aloysia citriodora (lemon verbena) and the splendid kowi, or parrot-beak flower of New Zealand (Clianthus puniceus) are so apt to droop, however, that slips of the new shoots of these plants should be closely covered for the first few weeks with a bell-glass (a single slip doing well under a tumbler) until new growths appear, after which the glass can be gradually raised until the young plant is inured to the open air.

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YOUNG BIRDS IN THE GARDEN

Nestlings of many kinds can be tamed by supplying them with food as soon as they leave the nest, gradually inducing them to approach and feed from the hand by sitting perfectly still.







Young Birds in the Garden.

CHAPTER XVIII

SECOND WEEK IN MAY

HE lovely blossoms of the Malmaison carnation sare now opening in the greenhouse, and their dainty fragrance is filling it. These plants have been kept rather dry throughout the winter, giving them an airy position near the glass, and no syringing has been allowed to reach their foliage at that time, for "spot" disease is easily set up by too much moisture, and, being of a fungoid nature, this trouble will run through and destroy a whole collection of these carnations very rapidly if water be allowed to settle upon their leaves and lie there. It is so highly infectious that plants, if once seriously attacked, are of little use, and are best thrown away or burned; but at the outset of the disease every infected leaf, with its black spots, should be cut off, and the plants dusted with powdered sulphur, removing them to a drier atmosphere, and giving them plenty of air, for at no time do they enjoy a close atmosphere.

After flowering, we turn the older plants into a frame without their pots, placing them rather low in the soil, and surrounding them with a layer of fine spent soil, leaf-mould, and a little soot, into which the new growths are pegged down, after trimming off their leaves about half the length from the stalk, and cutting the stems half through with a sharp knife. If watered in dry weather, and kept well covered with soil, these layers will form strong roots by the end of September, when they should each be potted up singly in a thumb-pot, shifting them on as soon as their roots reach the bottom or the pot, so that by the spring

each should be in a 5-inch pot. The finest flowers are produced by these strong young plants, but a greater profusion of bloom may be expected during the second season if the plants are potted on and well cared for during the winter, when they should have a temperature of about 450 at night. with an abundance of air during the day and a little at night, too, except during the most severe weather. should not be watered more than once a week at that time, allowing the surface soil to become thoroughly dry before the roots receive water again; but when it is given it should be tepid, and in sufficient quantity to supply all the roots thoroughly. It is in the matter of watering these plants in winter that amateurs are so liable to fail; for if they then receive as much water as ordinary greenhouse plants require, the carnations will soon become unhealthy and fail to do well. When they begin to make fresh growth, however, in spring, they will need more water; but at all times their roots should be kept rather drier than those of other plants, never soaking them when already wet.

Another shift (to a pot two sizes larger than the last) will be needed for those plants which are still to be grown on after flowering, and the soil for carnations should be most carefully prepared to exclude all insects, especially wireworm, their special enemy. Thorough drainage, covered with a little dry moss dipped in soot, should be laid over a wire crock, and the compost must be of good rich loam, with half the quantity of oak leaf-mould, and a little soot and sand. It is a good plan to mix this compost some weeks before it is used, and allow it to become thoroughly dry, when the germs of insects are destroyed; but if there is any doubt as to its freedom from these, it will be well to char it for a few minutes over a fire, until it is too hot for any insect to survive, when it should be made fairly moist again before using it. The plants should not have the ball of their roots broken up (only removing the drainage and the surface soil), and the fresh compost should be carefully packed round the roots, making them firm in it, and staking the plants at once. Porter's wire stakes and wire crocks

SECOND WEEK IN MAY

are indispensable for these plants; for the stakes, being spiral, and painted light green, display the flowers to perfection without interfering with the natural outline of the plant, and as the pots must stand in the full sunshine in the open air during the summer, it is very desirable to exclude worms, &c., by the use of the crocks.

Before the cold rain of autumn sets in, however, Malmaison carnations should be housed for the winter, although they need dryness more than much warmth. They must, of course, be kept quite free from blight at all times.

One of the most floriferous of the newer Malmaison carnations is Lady Rose, in delicate pink, a very lovely flower. King Oscar, of remarkably perfect form and rich brilliant crimson colouring, is in fine contrast to Lady Rose; Mrs. Trelawney is a beauty, in deep salmon-pink; Mme. de Satgé and Horace Hutchinson are both in scarlet; Thora is in palest pink, changing to white, Lord Welby in deep crimson, and Mercia in rich salmon-pink.

Cannas, if brought on early in warmth, with abundant moisture, will now be opening their fine spikes, and these are very showy, especially such good varieties as Alphonse Bouvier, Köningen Charlotte, &c. Phyllocacti, covered now with gorgeous blooms in many shades of crimson and pink, give glowing colour amongst the ferns, with which they should be grouped (for their somewhat gawky stems are not graceful), and the pale pink blossoms of P. delicata are very distinct amongst the rest. These plants, having been kept dry and cool from November till the middle of February, are now in great beauty, having been placed in warmth and abundantly watered since that time. From the end of July (when they will have made their fresh growth) till October they stand in full sunshine out-of-doors to ripen their new leaf-stems, but their pots should be sunk to the rim in ashes, both to prevent them from falling about and to keep slugs and snails (which are specially fond of eating the tender foliage of the cactus) from attacking them.

Posoqueria multiflora, a shrubby plant with fine foliage and lovely star-like flowers, belongs to the order Rubiacæ,

and (being a native of South America) requires rather more warmth in winter than some other greenhouse plants, but may be grown where the minimum temperature is 50°. The long-tubed blossoms of the posoqueria are highly fragrant with a sweet refreshing scent, and are like large waxen jasmine blooms in shape. This plant is, at present, not so well known as it deserves to be, but it is a distinct acquisition for the conservatory in May. It needs a compost of peat and loam in equal quantities, with a little leaf-mould, well-decayed manure, and charcoal, and the plant should be repotted in February, with plenty of well-laid drainage. It enjoys a fairly moist temperature, and should be syringed daily, except when in bloom. There is another variety with red flowers.

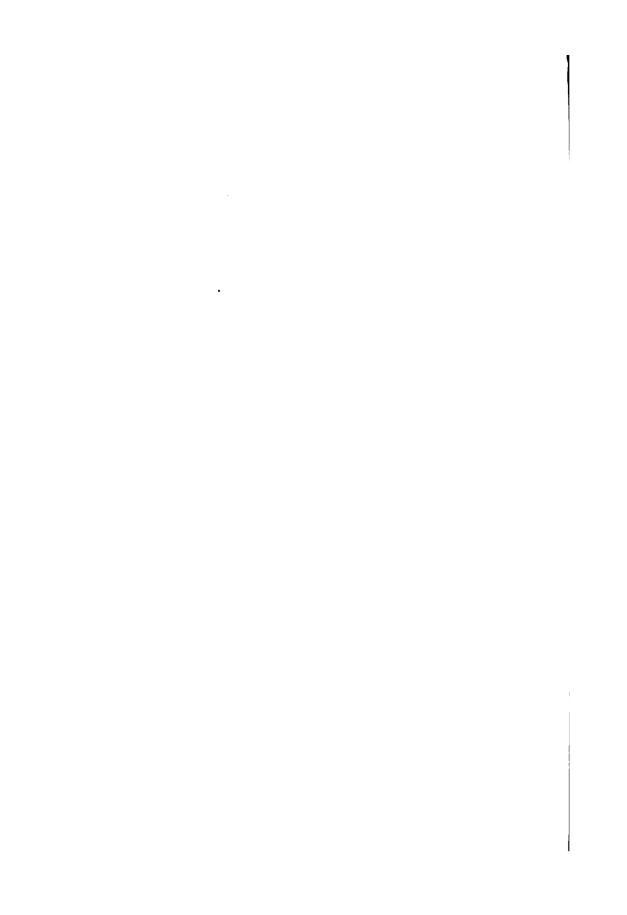
The birds in the garden are most interesting in their ways, and tamer than ever; two hen robins—Sylvia and Ruby each with a brood of young birds to provide for, flying constantly to the hand and taking a small bit of biscuit from the lips of their friend. Very tired the poor little things become before the end of their long day of toil for the hungry youngsters, and even after these leave the nest the mother bird provides them with dainties for several days, until they have learned to earn their own bread. This is the time in which it is most easy to begin the taming process, for the young birds, when first they leave the nest, are glad enough to pick up a few crumbs, not having yet trained their eyes to the constant search for insects. They are then easily induced to come near the "human" who provides them, and with a little quiet perseverance will soon take the food from the hand.

The mother bird is, however, careful to supply them also with plenty of insect diet, and sometimes she arrives with a spider just caught in her bill, a few caterpillars, or a worm, when it is a trifle risky whether she will not drop one or the other in filling her bill to the utmost with crumbs of biscuit. But this has not happened yet, and I am getting over the shivery feeling which attacked me the first time a big spider dangled over my hand, for I now feel

SECOND WEEK IN MAY

sure my robin is too clever to drop her prey when once secured.

But the father bird has to be reckoned with, and even the mother bird in autumn will drive her youngsters out of the garden, if possible, to ensure their finding a domain of their own before the winter. Her mate is apt to appear in his wrath when the young robins are fully fledged—having left the nest for a week—and scatter them all, including the mother, with beak and claws. He does not approve of any spoiling of the children, and insists upon their spreading themselves separately over the country, in order that they may learn at once to earn their own maintenance; and probably he is right, for every robin has its own 100 yards or so of garden or wood in winter-time, and woe betide any newcomer which ventures on another's ground! This is a doubly wise provision of Nature to ensure food for each robin, and also the destruction of insects all over the land. Those robins which cannot find an unoccupied kingdom by November are said to be chased by the rest to the sea, and there to take flight for another country. Poor little things! few of them ever arrive there, probably, unless the wind happens to favour their tender wings in such a flight. Last autumn my younger pet, Ruby, endured much buffeting from her parents, but absolutely refused to leave the garden, where such a convenient store of biscuits (which she greatly prefers to bread) was always available; at last she turned upon them, but this did not take place until she was fully arrayed in a bright red waistcoat, for the nestlings are all in sober brown when they first appear.



THIRD WEEK IN MAY

IRIS FLORENTINA

This plant—the Fleur de Lys of France—is one of the earliest of the bearded irises (Iris Barbata). Its root supplies the violet-scented orris-root of commerce.

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IRIS FLORENTINA.

CHAPTER XIX

THIRD WEEK IN MAY

THERE is a fascination about irises which is somewhat kin to that experienced by the orchid-grower; their rich and varied tints, elegant forms, and, in many cases, delicate fragrance place them in the first rank of our garden flowers; whilst they are mostly hardy, needing no great skill to grow them, and no hot-house in which to winter. Yet how rarely are our gardens well furnished with these plants! A few of the Spanish irises (xiphion), the germanica varieties (I. barbata), and perhaps the so-called English iris (xiphioides) may be found there no doubt; but of the rarer irises, lovely as many of them are, one can only say that they are usually conspicuous by their absence. of a few of these that we now write, for there are many irises which should be added to our collections which are but little known, and yet merit a place in garden.

Such, for instance, is the stately white iris of Italy (I. florentina), the plant which furnishes us with the scent of violets, which is obtained from its roots, and is so largely used in the violet-powder of commerce. "Orris"-root, as it is called, is probably a corruption of the word "iris" (easily obtained through the broad speech of sailors), and it is largely imported from the city of Florence, where large tracts of land are covered with these lovely blossoms in milky white, just touched in the centre of the falls with golden yellow, and having an orange beard. It is a distinct species,

and so is Iris flavescens (with tall spikes of pale yellow blossoms), which quickly follows I. florentina in opening its

flowers, both blooming at the end of May.

A very large number of hybrids of the flag irises have been introduced of late years by our horticulturists, some of which are of great merit, whilst others are scarcely improvements on the typical plant. Arnols, a fine flag iris of the Squalens group, is extremely handsome, with standards (or upper petals) in crimson-bronze, and falls in purple and gold; Bridesmaid, in delicate blue and white; Mrs. G. Darwin, a fine white flower, reticulated on the standards with violet and apricot; Queen of May, in a delicate shade of pink; Maori King, with crimson falls and golden standards; and Ada, in bright canary-yellow, with white falls reticulated in crimson-brown, are all first-rate hybrids of I. barbata, which are equally easy to grow with the ordinary German flag; and many another fine variety can be selected from a good catalogue of these plants.

One of the loveliest of the rarer irises is I. tectorum, the flower which grows in such abundance on the roofs of the houses in China and Japan. An interesting note on this iris was sent from Japan in 1899 by Mr. Peter Barr, in which he says that the reason of this flower garden on the thatched roofs of the cottages in the country districts is rather an economic than an æsthetic one. All thatched roofs need a ridge of some kind to throw off the water, and as the Japanese generally cast about to find something in Nature which will answer their purpose, they found that this close-growing iris renders their thatch a good, compact, water-resisting protection. They therefore plant the roof with these flowers, sometimes mixed with Lilium Thun-

bergium and hemerocallis, too.

There is a story told of a woman who went to a Shinto priest to inquire how she could give a blue tint to her black hair. She was told to obtain the colour from a flower which grew neither in heaven nor on earth, and trying the iris flower from her cottage roof, she obtained her object. In April and May the roofs of the Japanese cottages are massed

THIRD WEEK IN MAY

with these blossoms in rich violet-blue, with a high crest delicately frilled in paler shades. The plant needs a specially chosen position in our gardens to do well, as it is not considered to be absolutely hardy, and it requires to be roasted in the summer sunshine of July and August if it is to produce its exquisite blooms, in delicate shades of violet, with silvery white crests on each fall. The only protection which the plant needs in winter here is from a small frame-light, about a yard square, which is fixed over it (slanting from the wall) from November until April, so as to keep off the heavy winter rains. Iris tectorum produces a quantity of fresh rhizomes each year, some of which are removed and placed separately in small pots of gravelly soil in the greenhouse after the plant has flowered, these being well rooted by October, when they can be planted out.

This iris is said to do well in a cool greenhouse; but in this case it would probably be safer to grow it in a welldrained box or a large pot, as it requires to be placed in the strongest sunshine during the summer and kept fairly dry

during the winter months.

Another iris which loves a dry, warm position is an Indian species—I. milesii, from the slopes of the Himalayas. This is about the same height as I. tectorum (i.e., 2 feet), and it also blooms in spring, producing purple flowers with a high yellow crest; and that most delightful plant, I. stylosa, flourishes mightily on the same dry gravel terrace, although it has received no attention for years. This iris, if given rich soil, makes much fine growth, but utterly refuses to blossom; but when grown in gravel, and allowed to form a large clump, it is most floriferous, requiring no protection, although its flowers are constantly appearing from November to May, their slender styles pushing up amongst the leaves when the weather is open and mild. These exquisite winter blossoms, only second to an orchid in beauty, are gathered directly their colour shows, taken into a warm, sunny room, and placed in tepid water on the window sill, where they may be seen to unfurl their petals within half an hour, as though they had been waiting for the sunshine. Two large clumps on the

terrace provide flowers throughout the winter; but two other clumps planted on a raised border of richer soil, although looking extremely healthy, scarcely produce any flowers at all, and are to be removed to the dry, poor soil of the terrace in September. In planting irises (whether in the garden or in pots) it is well to remember that they require to be kept fairly dry for a time, until they have established themselves.

A new group of hybrids (for which we are largely indebted to the patient work of the late Sir Michael Foster and Mr. C. von Tubergen) are called Iris regelio-cyclus, having for their parent-plants Iris korolkowi and others of the Regelia section, and various members of the oncocycli, those delicate and disappointing plants, which can rarely be induced to flourish in our climate.

But the hybrid irises thus produced have constitutions of the strongest, and present but few difficulties in their cultivation, so that they are far more desirable acquisitions than the onco-cyclus group, for they grow strongly and increase in strength and beauty year by year, instead of dwindling and disappearing, as their progenitors are apt to do.

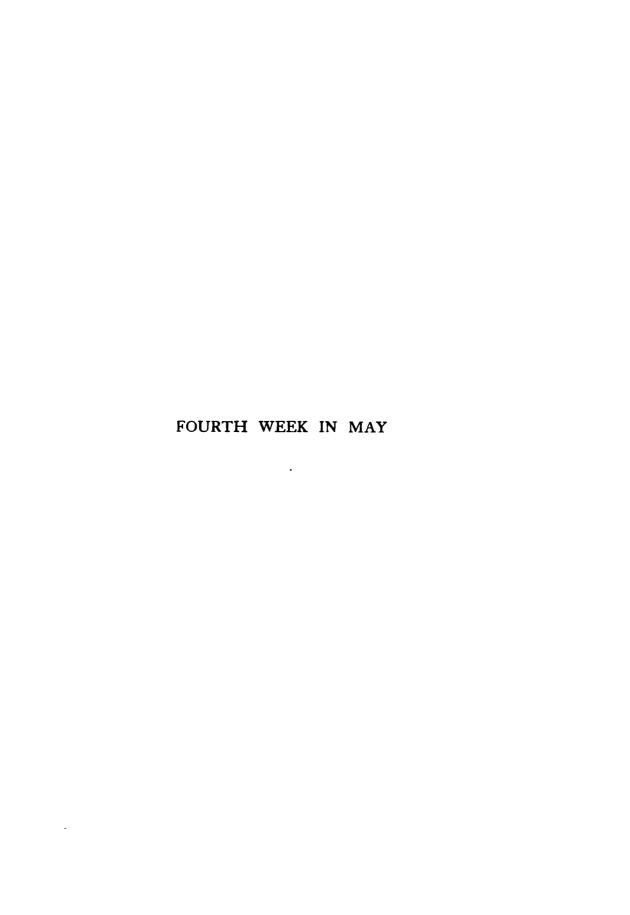
But they object to stagnant moisture about their roots, especially during the cold season, and must be kept fairly dry from September until March; whilst they do best when planted at the foot of a south wall on a well-drained terrace of light gravel soil, which should be intermixed with charcoal in small lumps and a sprinkling of bone-meal, for a certain amount of lime appears to be necessary for these irises.

They can be protected without difficulty by means of a spare frame-light, which should be fixed in a slanting position over their roots during the autumn and winter, allowing the air to have free access at the ends of the glass, which should shunt the rain or snow away, and will be a slight protection from the frost also. Treated in this way they produce an increasing number of blossoms yearly, which open about the middle of May. Iris regelio-cyclus Psyche has large blossoms borne in pairs on stems about 18 inches high, the blooms being in creamy white, thickly veined with maroon, the falls

THIRD WEEK IN MAY

bearing a large blotch of the same tint. Artemis, in shades of deep violet; Hera, with ruby-red standards and bronze falls tinged with metallic blue; and Charon, in golden bronze, are amongst the finest of these hybrid irises yet introduced. They should be planted in October.

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THE CHINESE BALLOON FLOWER

This is one of the best of the campanulas, with large blossoms in blue and in white. It grows to the height of 18 inches, and is quite hardy.

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THE CHINESE BALLOON FLOWER.

CHAPTER XX

FOURTH WEEK IN MAY

AY is pre-eminently the month of herbaceous plants. Years ago, when bedding-out flowers were fashionable, we had to wait until the end of June before our gardens were gay; now, fortunately, the latter half of May sees the herbaceous border in great beauty, for the hardy plants, wakening from their winter sleep in March, soon push up their sturdy spikes, and blossom in abundance

quickly follows.

Pæonies, regal in their fine colouring and size, are unfolding magnificent blooms. Their crimson-tinted leaves have been conspicuous amongst the green for some weeks, harmonising charmingly with the golden daffodils; and now each globular bud is bursting its calix, and the great fragrant flowers in creamy white, every shade of delicate pink and crimson, with golden stamens, are unfolding their fringed and tufted petals. Double, single, or semi-double, it is difficult to say which are the most lovely. Summer Day, like a magnified La Marque rose, is one of the most perfect of blossoms; Limosel, in pale pink, is a grand flower, with special fragrance; Coronation is in delicate shades of flesh-pink, apricot, and cream, with rich golden anthers filling in the centre; and many other grand double varieties can be selected from the catalogue of Messrs. Kelway, of Langport, who are specialists in these glorious flowers. Agnes Mary Kelway is the queen of the tufted pæonies, a singularly handsome hybrid of the Japanese type; Mountebank (with pink guard petals, surrounding a mass

of petaloids in lemon-yellow), Miss Salway, and Elegans superbissima are also tufted and indescribably beautiful; and amongst the new Imperial pæonies, semi-double, with a central tuft of golden petaloids, the pure white Queen Alexandra is conspicuously lovely. These flowers remind one of a water-lily; they have broad, shell-like outer petals. and the colours are most delicate, the magenta tint of the original double pæony having been carefully eradicated in favour of coral and salmon shades. The single pæonies are more like gigantic wild roses, especially Pink Domino, in shell-pink; Lady Helen Vincent, blush-rose; and Countess Cadogan, in flesh-pink. These flowers, cut with long stems and strongly wired, are remarkably handsome for a large bouquet, standing in the hall, or the summer fireplace; in fact, whether in the garden or the house, they are most decorative, and no garden should be without a few of them.

Standing well behind the pæonies are the stately blue delphiniums, contrasting their many shades of azure, turquoise, and royal blue delightfully with the warm colours of These plants, like most of the herbaceous the pæonies. things, do best in a rich, strong soil, where they can throw their roots deeply down, and so be independent of drought. Once planted, they should be left alone to form great masses of colour; for the plan of constantly digging up herbaceous plants and dividing their roots is a mistake, except in the case of a few rampant growers, such as the perennial asters (Michaelmas daisies) and the helianthuses, which always invade their neighbours' territory, if allowed to do so. a mulch of rich soil laid around the plants in the spring will prevent them from becoming exhausted; and if this has not already been done, no time should be lost in attending to it, for next year's display of bloom depends greatly upon the state of the plants during the present season.

Tall white and spotted foxgloves (Digitalis alba and D. maculata), with the new hybrid in pale primrose-yellow, group well with the rest at the back of the border, especially where there is a background of foliage or an old brick wall. Nearer the centre of the broad border grow masses of

FOURTH WEEK IN MAY

pyrethrums, great marguerites in glowing carmine, pure white, apricot, and deep pink, some being double and others single flowers.

Aquilegias are now in full beauty, their blossoms being in many shades of blue, yellow, red, and creamy white, with the long spurs which give them an orchid-like appearance. Few flowers are more suitable for decorative purposes. Their foliage, too, is light and pretty, and these plants are not too particular as to soil or situation. But these new aquilegias cannot be trusted to sow themselves in the garden like the old-fashioned columbines; and it is necessary to obtain fresh plants every year or two to keep up the stock, especially of the blue Rocky Mountain aquilegia (cœrulea), which seems less vigorous than the rest. A. baikalensis is an extra large blue variety; A. canadensis nana is in apricot and scarlet, with dark foliage; and A. chrysantha is a pure yellow flower. When once a good selection of aquilegias has been put in it is easy to keep it up by sowing seed yearly, in a shallow box of good soil in May (which may stand in a cool greenhouse or a frame), hardening the young plants as the season progresses, and planting them in their flowering positions during the following October. As they will soon disappear for the winter, care is needed that they are not then disturbed; and they are safest during their first season in a nursery bed, from which the plants which bear the finest blooms can be selected for planting in the garden. All inferior forms should be rooted up at once, as the seed of the rest easily deteriorates through the action of the bees in carrying pollen from one to another; where care is taken to eliminate all but the finest varieties many beautiful new forms and tints will be observable amongst them. Seed may also be sown in the open ground in May, but a moist position is necessary, as the young plants are easily destroyed by a drought.

Agrostemma Walkeri is a new lychnis in the richest crimson, blooming in June. This is a decided improvement on many of the lychnises, the colour being free from a magenta tint; Lychnis Haageana and L. fulgens are, how-

ever, handsome scarlet varieties. Erigeron speciosum, too, is a very useful plant, forming masses of bloom for many weeks, these bright mauve daisies appearing again in the autumn, if the plant is cut back as soon as the early summer bloom is over.

Helenium grandicephalum striatum flowers late in the autumn also, and this plant is then most decorative, producing large quantities of golden yellow blossoms striped with crimson and brown, which are invaluable for cutting, for their rich colouring and light form make them very effective. This plant will thrive in any fairly good soil, increasing yearly till a large clump is formed. It is best propagated by division in the autumn or the early spring.

The perennial poppies are most satisfactory plants; the dwarf Iceland varieties, in creamy white, yellow, and orange, providing plenty of cut flowers early in the season, whilst the coppery apricot tint of Papaver pilosum makes it one of the best of decorative flowers. In cutting the blossoms, however, it is necessary to be beforehand with the bees, for they quickly find out and fertilise the blooms, when the petals will drop in a few hours. Poppies, for this reason, are best picked in the bud just as the colour shows through the opening calyx. They will then stand well in water for several days, opening their petals without difficulty if placed in a sunny position. The enormous blossoms of the Oriental poppies (Papaver orientale) are magnificent in the garden, though not suitable for cutting. They form grand masses of colour if left alone (except for the usual spring mulching), as all poppies object to the disturbance of their roots, and take some time to settle themselves in the soil.

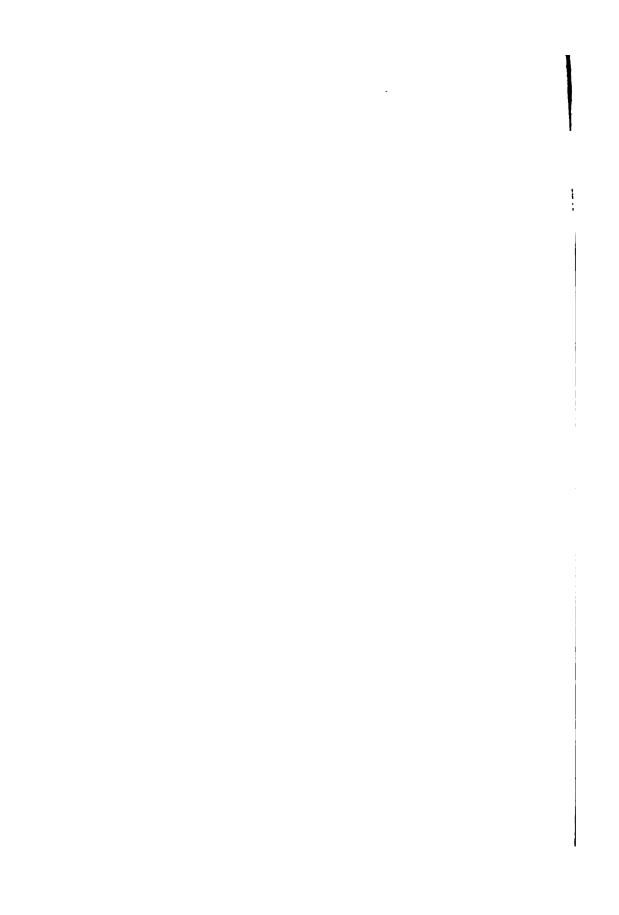
Pinks, dainty in form and deliciously fragrant, are always popular, whether of the pure white varieties (such as Her Majesty and Mrs. Sinkins) or the laced pinks, Old Chelsea and Bertha, in shades of pink and red; of which the new variety, Ernest Ladhams, in blush-rose with a crimson centre, is one of the best, with flowers as large as a fine carnation. These plants, long neglected except in the white forms, are now again becoming better known; and they should be in

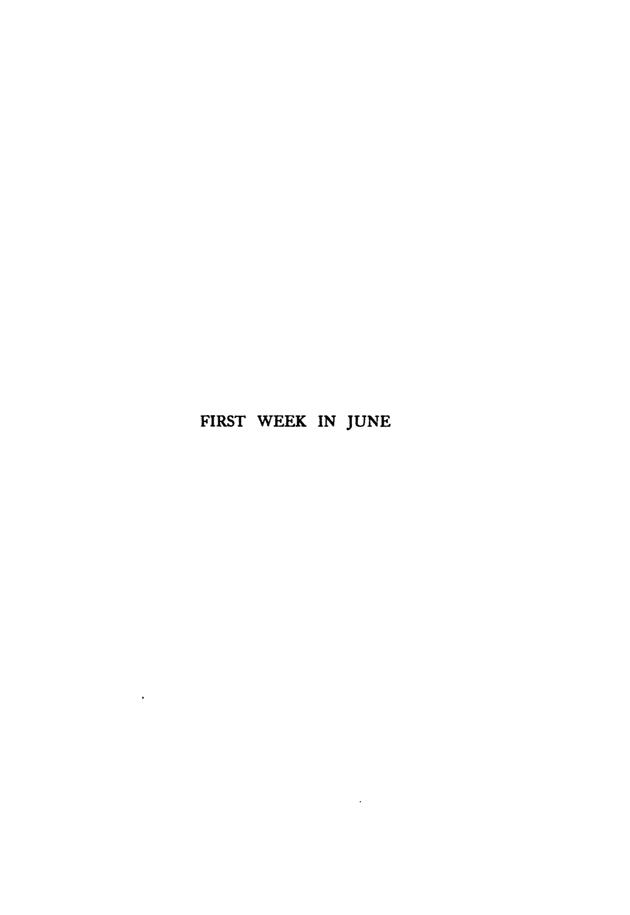
FOURTH WEEK IN MAY

every garden, for they will grow even in a city if given good loam and a fairly dry situation. Clumps of pinks, raised with care from the borders in autumn, can be induced to bloom early by slight forcing; they are, however, apt to become infested with aphides if kept too warm, and this must be avoided.

Campanulas in variety should be largely grown, for their soft blue tints are delightfully cool in summer. Platycodon mariesi, the Chinese balloon flower, is one of the finest of these; the better-known C. persicæfolia is in white as well as blue, and there are double-flowered varieties, which are distinct and handsome. C. latifolia produces fine spikes of white flowers in August, and C. pyramidalis, the chimney bell-flower, reaches the height of 6 feet under good cultivation. The dwarf campanulas are very suitable for a rockborder, C. isophylla and C. garganica doing well in a window, where they produce long trails of their lovely blue or white flowers. Not being quite hardy, these two varieties seldom survive our winter in the open air.

The tall, red-hot poker flowers, kniphofias (syn. tritoma), or torch lilies, are very ornamental towards the autumn, when their brilliant scarlet and gold spikes are conspicuous even at a distance; they group well in front of a mass of pampas grass, throwing up spikes from 2 to 6 feet in height. One of the tallest is K. aloides nobilis, which has been grown in rich soil to the height of 9 feet; K. Tucki is nearly as fine, in deep salmon-red; and K. aloides Saundersi is a fine tall plant, with brilliant fire-coloured flowers. More dwarf varieties are K. aloides grandiflora, about 4 feet in height; K. corallina, a flower in coral-red; and K. macowani, in deep apricot; they all enjoy a deep rich soil. and should be well mulched with manure in spring yearly, when they will form fine clumps in the course of a few years, even in a town garden.





ROSE, "HER MAJESTY"

One of the finest or the pale pink roses, which does well either in a pot or in the border.





Rose Her Majesty

CHAPTER XXI

FIRST WEEK IN JUNE

JUNE is the month of roses, and even the hedgerows are now wreathed with eglantine, the sweet wild rose which blooms for those who have no time or space to give to the cultivation of the queen of flowers.

Amongst the newer roses, Etoile de France, a hybrid of M. Pernet-Duchet's, is conspicuous for size, colour, and vigorous habit, three points which are not always to be found combined in one flower. It is in a vivid cherry colour, velvet-like as it shades into crimson, with handsome cup-shaped centre, opening freely and perfectly. Another beautiful newcomer is Mrs. A. Byass, a decorative tea rose, in shaded crimson, which promises to become a general favourite in the garden; and Earl of Warwick, a rose in rich salmon-pink, with a brilliant carmine centre, a full and well-shaped flower of very distinct character, with a vigorous habit of growth.

Mrs. W. J. Grant, a large flower in rich pink, is a strong grower, too, with a floriferous habit; Muriel, a dark salmonred rose, is remarkably good; and Irish Pride is in "high art" tones of vieux-rose and old gold, a distinct and beautiful flower. A rose which is very popular in America, but little known in Britain, is called Ivory, from the creamy hue of its petals; and England's Glory is a fine pink rose, raised by Messrs. Wood, which is excellent in every respect. Lady Roberts is in metallic red and copper shades, a wonderful tint, difficult to describe; and Comtesse du Cayla is in rich tones of nasturtium red and gold, with plenty of fragrance.

Many older favourites are still amongst the best of all

roses for the garden, such as Anna Olivier, a tea rose, in palest pink, with a more deeply tinted centre; Bridesmaid, one of the loveliest of all flowers, in salmon-pink; La France, with most fragrant blossoms, in delicate blush-pink; Her Majesty, in a somewhat similar tint; the Bride, an exquisite white rose; Niphetos, snow-white; Madame Lambard, a lovely flower in rich salmon-pink; Madame Cadeau Ramey, in a perfect shade of shell-pink; Solfaterre, a great tea rose, pale primrose-yellow in tint, of strong habit and great beauty; and many another which has survived its first introduction to become a highly appreciated garden rose of easy growth and much vigour.

This cannot, however, be said of all the new exhibition varieties, which sometimes disappoint the amateur who wishes for an abundance of roses, for they are in some cases only suited to supply one or two enormous blooms for the exhibition table, and these cannot be obtained without a thorough knowledge of the best plans of cultivating them. But show roses are not always the most desirable in other respects, for many of them are wanting in fragrance, and also suffer from over-production in their early stages, producing a weakly constitution, which quickly succumbs, unless the greatest care and attention are bestowed upon the plant, which seldom survives for many years under ordinary cultivation, and is not robust enough to be satisfactory at any time. How far this weakness is attributable to the process of budding (which enables the raiser to distribute a new rose quickly) it would be difficult to say; but the fact that the roots or the stock used in budding are so much stronger than the scion induces the formation of suckers and basal shoots, which starve the budded roses unless they are constantly removed, and even then the underground stems thrown out around the stem do not conduce to the health of the scion. This process of cutting up a new rose again and again into "eyes" for budding may be necessary to the raiser; but, happily, the amateur need not follow the same practice, but will find that roses on their own roots are usually the best for the garden.

FIRST WEEK IN JUNE

Some of our rosarians (notably Mr. W. Paul), recognising this fact, now make a speciality of supplying roses on their own roots; and there is no doubt that Nature's plan is the best, and that the constitution of a rose which has not been deprived of the roots with which it was naturally supplied will be far more vigorous and long-lived than any plant which has to wage a constant warfare with the stronger rose below it, which is equally desirous to propagate its kind and has more power to do so.

Blights of many kinds attack roses, and those which are ill-nourished always suffer most severely from this cause. Green fly is easily destroyed under glass by vapourising, but is difficult to combat in the open air, especially during a dry season, when the roots, being short of water, cannot maintain the full strength of the plant. Copious syringing with warm water, to which carbolic soft soap has been added, is useful, for the soapy froth is destructive to the insects; but it needs to be repeated several evenings in succession, as the eggs hatch out. The leaves of the elder-tree steeped like tea in boiling water, and allowed to stand until cold (when more hot water can be added), form a good wash for aphides, too; and even plain warm water, vigorously used through a powerful syringe, will do much to rout the enemy if persisted in. But caterpillars, which attack the buds (rolling themselves up in the tender foliage, too), and other pests, must be sought out and destroyed by hand-picking in their early stages; and the deadly orange rust, as well as mildew and red spider, are best checked by a warm solution of potassium sulphide in the proportion of $\frac{1}{2}$ ounce to the gallon of water, with I ounce of carbolic soft soap.

Paraffin, which is sometimes recommended as an insecticide, is a very dangerous addition to a wash for roses, for every tender bud and leaf touched by it will shrivel and turn black. It should never be used in a greater proportion than that of 1 ounce to a gallon of soap and water; and it must always be first mixed with a little hot milk (beating up the two together until thoroughly amalgamated) before adding it to the soap and water, as nothing else will

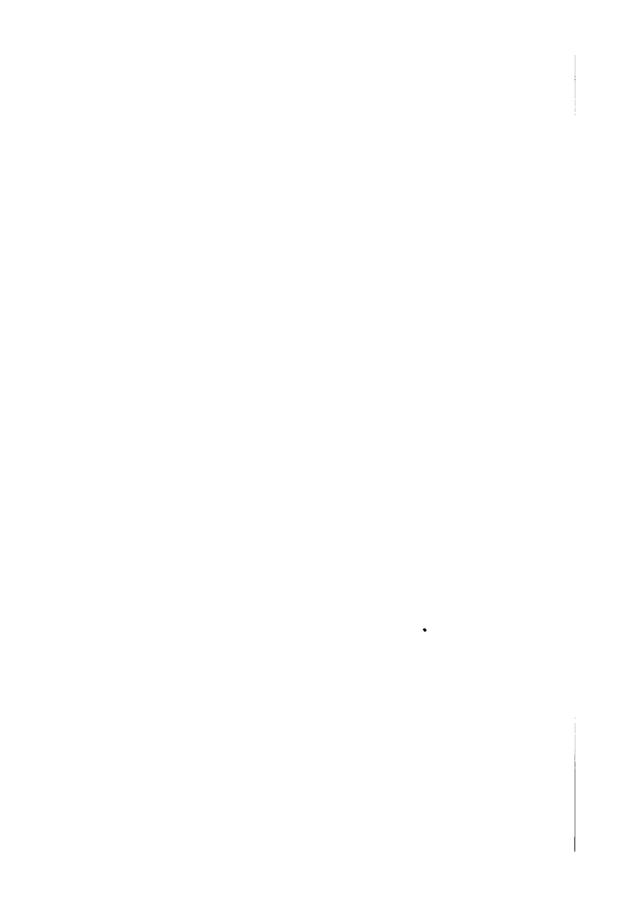
induce it to mix, and paraffin floating on the top of the water is deadly in its consequences.

Most of the birds of the garden rear two or three broods of nestlings in the course of the summer, some of which, I fear, fall a prey to the cat before they are quite able to fly. The anxiety of the mother birds when their young ones leave the nest is great, and their manœuvres are curious to watch. The hen blackbird (a misnomer, by the way, for she is dressed in rusty-brown) attacks pussy every time she appears in the neighbourhood of the bushes in which the young brood is hidden, trailing her wings and screaming loudly as she chases the cat, within a few inches of his tail, to draw his attention from the nestlings. Pussy, dignified and well fed, turns occasionally on his pursuer, swearing and spitting at the impudence of the bird, but does not venture to attack it, for the angry mother is too much like an Irishman at Donnybrook Fair to be a pleasant assailant. The robins give warning to all the birds directly the cat appears with a cry exactly like the sound of a tiny watchman's rattle. The young robins are conveyed into the thickest laurel or choisya bush to be found near their nest, as soon as they first leave it, where they live for several days, constantly fed by the parent birds, before they can fly strongly. Dick," the tame chaffinch, which, like the robins, comes to the call for crumbs, brings his mate, in sober attire, with him, although she is not nearly so tame. He is a beautiful bird in soft shades of terracotta-red, with a crested cap and wings of slaty-blue, softened off into olive-green on the back; his wings are barred with black and creamy yellow, and altogether he is extremely smart as well as most hardworking. He comes to the window very early in the morning with his insistent metallic chirp for food for his nestlings, and will fly to his friend for it even when other "humans" are close by. He is a son of the "Little Widow," a hen chaffinch, who lost her mate and one of her feet in some accident two years ago, and consequently had very hard work indeed to bring up her family, even with all the help we could give her. She brought her brood to be fed

FIRST WEEK IN JUNE

on the terrace directly they could fly, and they became extremely tame in consequence. The little blue-bird (Tommy Tidler by name) is quite fearless, not to say bold; he feeds from the hand, and, in fact, pecks rather hard if he should be caught. These exquisite little creatures in amethystine-blue, shading into soft primrose-yellow, are like jewels when seen at close quarters, and their pert ways are most amusing to watch. The tiny marsh-tits—even smaller than the blue-birds—are in grey, with a black velvet cap and points, and are equally lively and charming.

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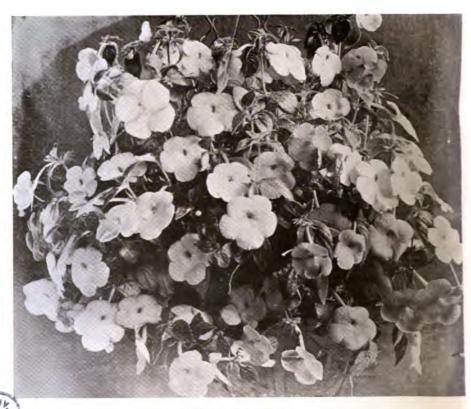


SECOND WEEK IN JUNE

A BASKET OF ACHIMENES

Baskets filled with flowers are most decorative in the conservatory, the porch, and on the balcony. The plants selected should be suitable for either sunny or for shady situations, achimenes being one of the best of the latter.





A BASKET OF ACHIMENES.

CHAPTER XXII

SECOND WEEK IN JUNE

NE of the loveliest of the hardy bulbs for the garden is St. Bruno's lily (Anthericum liliastrum), with its graceful spikes of bloom in white satin, slightly frilled at the edges. Each blossom is about 3 inches across, and the foliage, something like that of the daffodil, is graceful too. In a Devonshire garden it needs no protection, appearing yearly in spring on the herbaceous border; but possibly in colder districts a conical pile of ashes may be needed to keep it dry and free from frost in winter. With this slight protection many an uncommon bulb will do well, even in the northern parts of our islands, and it is a very easy and simple process, covering the bulbs in November yearly, and uncovering them with care in March.

Anthericum liliago (St. Bernard's lily) is also charming, but its blossoms are much smaller. These bulbs soon form a fine clump in the border, and the lace-like mass of their little white lilies is useful amongst heavier blossoms.

A fine variety is A. plumosum, with larger flowers than the type; and the Algerian anthericum (Algerense) is also white. A. Hookeri (syn. Chrysobactron) has brilliant yellow blooms, and appears to do well in the garden, the bulbs put in last year being now in bud. One of the best of the anthericums is A. variegatum, the foliage plant which is so useful in our rooms, for it is most longsuffering, and will do well in a small pot for a year or two. This plant has the singular power of propagating itself from the seeds it produces on its long sprays of small starry flowers,

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without the help of soil, for the seeds are retained on the plant whilst they germinate and produce young plants. It is an easy matter to peg these down into a box of light soil, where they will quickly take root, and can then be potted up separately. They are very useful for table decoration, for window-boxes, and for the border in summer, as well as for furnishing, and are hardy enough to survive a little frost in winter. It is, therefore, a plant which every one may grow, and it should be much more common than it is. All the anthericums enjoy a plentiful supply of water when in growth, but like to be kept rather dry in winter; a light, open soil, with a little peat and leaf mould intermixed in it, suits them best; but they are not too particular, and will grow in ordinary garden loam.

The quamashes (camassia) of North America are not so often seen in our gardens as they might be, for their white or blue blossoms are very effective in the early summer. Camassia Leitchlini, with silvery star-like blossoms on a tall spike 2 feet in height, is specially beautiful, and they all appear to be perfectly hardy, as they should be, coming as they do from the north-west of America and British Columbia. C. esculenta is not so tall, producing blossoms of a soft violet-blue; and C. Cusiki has flowers of a paler shade of blue, with stouter foliage than the rest. They all enjoy a deep, rich soil, and although they are said to prefer the shade, they do well also in the sunshine, appearing year after year in the borders, and forming

Basket plants of many kinds are very desirable in the greenhouse, but one must know a little of their nature before using them, as some of them need shade, others the full sunshine. A basket of achimenes, for instance, one of the most effective of all, should hang in a rather shady position, below a creeper-clad glass roof, as the dry heat of the sunshine (without this) curls up the foliage and spoils the flowers; tuberous begonias, too, love the shade, for they grow (in their native haunts) amid the overhanging tropical foliage on the slopes of the Andes, where the warmth only

clumps of bulbs if left alone.

SECOND WEEK IN JUNE

of the sunshine penetrates the shade. All the gesneraceous tribe need semi-shade, and should never be exposed to the full rays of the sun; but, on the other hand, light in full measure is needed by many plants to bring their blossoms to perfection. Lobelia (the new double variety in cobalt-blue, Kathleen Mallard being the best) makes a charming basket, a cloud of tiny flowers hanging around and below it in profusion; and this plant does best in the full sunshine. Sedum carneum, too, with rose-tipped foliage and pink flowers, fails to put on its pretty tints unless it obtains the sunshine; and Nierembergia gracilis, a trailing plant of great beauty, in mauve and white, also loves a certain amount of light. Lotus peliorynchus is a rather uncommon plant from Teneriffe, with light trailing foliage, grey-green in colour, and bright scarlet flowers produced at the axils of the leaves. These pea-shaped blossoms are not always freely produced, however, the usual cause being that the plant is indulged with soil of a rich nature. Being a rock trailer on the sandy slopes of Teneriffe, it needs a compost of light loam, sand, and leaf mould in equal parts, with an admixture of charcoal in small lumps and excellent drainage; a young plant, if potted up in the spring, usually makes an abundance of growth during the summer, but fails to blossom until the following year, when it should not be disturbed by repotting until after it has bloomed, but may be slightly top-dressed with rich soil, and given a dose of soot-water (in a thin and clear state) twice a week, with pure water between whiles, for it is a thirsty plant when in growth, although it needs to be kept fairly dry in the winter. Sunshine is necessary to it, especially during the spring.

This is the best time in which to start a fresh stock of potpourri, for rose petals (which should be gathered from the old-world cabbage, Persian, and moss roses, with others from such fragrant flowers as Général Jacqueminot,

La France, &c.) are plentiful.

The following is an excellent recipe for potpourri as it was made a century ago, which will retain its fragrance

for many years. Collect a quantity of the petals of red roses, jasmine, lavender buds, mignonette, and all manner of sweet-scented flowers, and strew them in a cardboard tray, sprinkling them with salt, and drying them in a shady room for a week. Also pluck the leaves of lemon verbena, sweetbriar, mint, rosemary, balm of Gilead, knotted marjoram, sweet basil, lemon, thyme, bay, and other fragrant plants, salting and drying them in the same manner. Then place them in a jar with a close cover, strewing each layer with the following spices, first mixed together: 2 ounces each of cinnamon, cloves, pounded allspice, storax, orris-root (sliced), Calamus aromaticus, gum benjamine, sandalwood shavings, and a small quantity of musk (this is very expensive, and may be omitted), the rind of two lemons, cut thin and sliced as for marmalade, I lb. common salt, and a few drops of oil of bergamot or oil of lavender, stirring the compound well together before use. More flowers and leaves can be added as procurable, always drying and salting them first for one week before adding them to the rest. The contents of the jar should be thoroughly mixed and stirred together daily for six weeks, taking care that the spices do not all lie at the bottom of the jar, after which the potpourri is ready for use. Half of it may be used at one time with advantage, keeping the other still closed and occasionally stirred, and changing the contents of the jar and those of the china bowl which contains the potpourri in use occasionally. Fresh salt may always be added, also a few drops of eau de Cologne, lavender-water, or any fragrant essence, if the potpourri should become too dry, with lemon peel, too. The bowl should be covered at night, if possible, to keep in the scent of the potpourri, and prevent dust in it.

More rose petals, lavender, sweet verbena leaves, &c., can be added year by year for a long time, always drying and salting them before adding them to the potpourri.



CALOCHORTUS VENUSTUS VESTA

This is the best variety of the Mariposa lilies, all of which should be planted in October, choosing a well-drained position, and protected from the winter rains by a pane of glass raised over their bulbs so as to admit air.

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CALOCHORTUS VENUSTUS VESTA.

CHAPTER XXIII

THIRD WEEK IN JUNE

OAM the world where we may, there will never be found a sweeter spot of cultivated soil than a British garden. The exotic blossoms and flowering trees of India are magnificent, and the orange groves of Italy most fragrant; but they lack the well-kept lawn, the fresh sweetness of hardier flowers, and, above all, the background of cool greenery, which sets off the whole of the English garden to perfection. Especially beautiful are the gardens of the present day, freed as they are from the thraldom of the "beddingout" fashion, and full of all manner of hardy perennials and flowering shrubs from the ends of the earth, which were unknown to our forefathers, but are now quite at home amongst the lilacs and laburnums and sweet pink hawthorn which have adorned our shrubberies for ages. Japan especially has provided us with many flowers, lilies, irises, pæonies, and flowering cherries amongst them, and yet they come from the "land of the chrysanthemum" in rich profusion.

Mr. William Robinson (the author of "The English Flower Garden") has done much to beautify our gardens by pointing out the fallacies of various "styles" and the beauties of a garden which arise out of its natural site and conditions without following any stereotyped fashion, so as to have an individuality of its own, and to be a reflex of the beauty of the great garden of the earth. To possess such a garden is only possible to those who love Nature and study her ways; but every piece of ground, however small, contains possibilities of beauty which are too often never discovered by its owner, because the matter is handed over from the first into

the hands of the builder and the ordinary gardener, and so becomes just like all the other gardens in the neighbour-

hood, commonplace and dull to a degree.

Not only will the real garden reflect Nature, and also the individual taste of its possessor, but it will contain many plants which suit its position, aspect, and soil, and consequently do well in it; the stereotyped effect of scarlet geranium, blue lobelia, and pyrethrums will not content its owner, who will study the many beautiful aspects of vegetation which are possible in a garden during the seasons. The present is the best time to pause and do this, for Nature is now in the full glory of summer, the delicate tints of spring are past, and the wealth of rich colouring which autumn

brings will soon be here.

The first consideration should be to suit the garden to the style of the house. The stately gardens which surround the castle are entirely out of place near a cottage; but in every case the surroundings of the habitation should be such as will melt naturally into the landscape, not stand uncomfortably apart from it. In travelling abroad we are often struck by the bareness of the houses to be seen from the railway, which appear to have been set down by chance in their present position, but might, like the painted toys we played with in childhood, be equally well placed on any other square of the carpet, if they could be moved about in a similar way. This is not much the case in England, however, where many homes, both stately and modest, nestle happily amongst the trees, and even cottages are wreathed with roses; yet there is still room for improvement, this especially being the case in new or suburban districts, where the handiwork of the builder is still too much en évidence and the stiff conventionality of the gardens, each a copy of the next, is painful to the eye.

Flowering shrubs of many beautiful varieties might well take the places now filled by stiff euonymus, box, conifers, privet, yews, and other non-blossoming plants, which too often fill our gardens; climbers might be used in profusion, not only on the house, but also to wreathe arches, pergolas,

THIRD WEEK IN JUNE

&c., with flowers, but these must be carefully placed in suitable positions.

The lawn is always a delightful part of the garden, and this should never be cut up into flower beds or so planted as to destroy the idea of breadth and greenery, which constitutes its principal charm. The sides of the lawn, however, may well be chosen as positions for fine specimen plants, such as a Datura suavolens Knightii, with great white trumpet-shaped blossoms; a tree paeony, which gives a magnificent glow of colour in June; or a group of rhododendrons of the hybrid group, which contains so many fine varieties, such as R. mirabilis, R. Gauntletti, &c.

Tall plants (i.e., white foxgloves, blue delphiniums, kniphofias) look their best when grouped at little distances, and may be well placed behind dwarf rhododendrons and where their spikes of bloom will show up against greenery; the half-shaded position which suits rhododendrons will also do well for these, with violas, also shade-loving flowe s, as an edging, and liliums between the shrubs. But such a border must be well made, with an addition of peat and rich soil; most of the plants can then be left alone for years, as they do not enjoy any disturbance of their roots, and only need a yearly mulch of manure in spring. Pæonies in many exquisite tints will give a good effect in a year or two, and Oriental poppies, which resent a move, and are finest when left to their own devices, when the pure scarlet of their massive blossoms is very telling.

When it is necessary to emphasise the corner of a lawn or a border few plants are more effective than the plantain lily, Funkia Sieboldii, with its fine rosette of great glaucous leaves and tassel-like flowers. This is a hardy deciduous plant from Japan and China, of the order liliacæa, easy to grow, and increasing in size yearly if not unduly disturbed. In fact, most of our hardy perennials do best when allowed to take their own way; and the terrible necessity to dig them up continually entailed by the late fashion of semi-tropical bedding is now happily a thing of the past.

¹ See frontispiece.

The beautiful pure white Bride gladiolus is the hardiest of the early-flowering section, increasing itself rapidly in the garden if planted in a light, well-drained soil, and flowering with greater freedom than in pots. The Blushing Bride, with carmine spots on its lower petals, the scarlet variety blotched with white, named Prince Albert, as well as the lovely salmon-pink flowers of Queen Wilhelmina and of Salmon Queen, are all worthy of a place in the front of a dry raised border; but in cold districts, or in a heavy clay soil, it will be safer to take out a pit 2 feet deep below each group, placing 6 inches of broken crocks at the bottom, covered with turfs (their grass side being downwards), and over these the hole may be nearly filled with loam, leaf mould, and coarse sand or fine gravel in equal proportions, in which the bulbs should be planted 2 inches apart and 3 inches below the surface. A conical pile of fine dry ashes (6 inches deep in the centre) should be added over the bulbs before the storms of autumn set in; but these precautions are not necessary in a warm, dry position with a gravel soil, for it is the clinging moisture of our winter climate, more than the cold, which injures these bulbs.

The same may be said of the Mariposa lilies, or star tulips (calochortus), from California, which need to be planted in October, and kept dry by means of a square of glass, raised on four small pots, over the bulbs. They are very pretty, especially such varieties as Vesta, in creamy white, each petal being blotched with an eye like that on a peacock's feather; but their want of foliage is a drawback, and they look best when carpeted in spring with some

dwarf flower, such as campanulas or verbenas.

A little gem for the rock border, or any sunny, rather dry situation, is Anomatheca cruenta, a tiny irid about 5 inches high, which produces brilliant carmine blossoms, blotched with maroon. After flowering, it ripens seed, which should be sown at once, and in this way the plants soon accumulate, blooming the following season; it was sold some years ago as a novelty under the title of the "scarlet crocus," but is in reality more nearly allied to the iris, being

THIRD WEEK IN JUNE

one of the many lovely irids which adorn the veldt of South Africa.

Many uncommon bulbs from the Cape are now showing bloom in the garden, such as the ixias, in exquisite variety, babianas, tritonias, &c. The plains of the Transvaal are no doubt a wonderfully beautiful sight at this time, when the many and various iridæ, ranging from iris to gladiolus, open their blossoms. In the Botanical Magazine about twenty-three distinct species of these (including Watsonias, Moræas, freesias, &c.) are illustrated, and all are lovely. Many of them will grow in the open air in a warm, light soil, well drained; but for the rarer irids we use panes of glass, or small frame-lights, which are fixed against the south wall, under which they grow, to cover the bulbs in the border from November to April. This is such an easy precaution (which enables us to grow many a rare bulb successfully in the open air) that it can be well recommended.

FOURTH WEEK IN JUNE

BUDDLEA GLOBOSA

The Honey-ball Tree of Japan is very handsome, but requires a position sheltered from the north and east winds to attain its full height. It should be planted against a south-west wall in a sunny place.

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BUDDLEA GLOBOSA.

CHAPTER XXIV

FOURTH WEEK IN JUNE

A MONGST the finest of the shrubs now in blossom the Honey-ball Tree, or Golden Ball of Japan, is conspicuous, for it is covered at every point with yellow flowers, each so full of honey that it scents the surrounding air and attracts all the bees in the neighbourhood, so that a continual humming sound surrounds the shrub.

In a sheltered corner here this fine plant grows to the height of 16 feet, and is nearly as deep through: an unusual sight, except in Japan, for it is not absolutely hardy, and more commonly it only attains half that height, being often cut back severely by the cold winds of our spring. The silver-lined foliage is distinct and handsome, and in a suitable position, sheltered from the north and east, with deep soil, few shrubs can rival it in June. Cuttings put in under a frame in autumn are not difficult to manage, but they should be sheltered for the first winter, until their stems are hard and woody.

Every garden, however small, should contain an arch or a series of arches covered with roses and clematis, for the beauty of these two plants is enhanced by their being planted near each other, and both are just now in full bloom. The new clematis Ville de Lyon is very distinct from the rest, the flower being about 8 inches across, and crimson in tint, with an edge of a deeper shade than the centre. As a companion for the rose Rêve d'Or, with creamy-yellow blooms, the Ville de Lyon clematis is most beautiful; whilst the rich blue flowers of C. Blue Gem harmonise well with any

climbing rose in pink; and the pale blush-pink blossoms of C. Fairy Queen, barred with pink, are suitable companions for the deep velvety crimson of Noëlla Narbonnand or Reine Marie Henriette. Amongst the double varieties, Belle of Woking is conspicuously lovely, in silver-grey with a mauve centre; and Duchess of Edinburgh is a good double white flower.

A very pretty clematis, which produces a mass of small flowers in rich crimson, each 2½ inches across, is C. Kermesina, a thoroughly hardy variety, doing well in most localities; and C. Montana, the beautiful mountain clematis from the Himalayas (where it wreathes the rhododendrons at a certain elevation of many thousand feet), is also very robust and floriferous. But all the clematis tribe need plenty of nourishment, and they will share the mulch of rich soil which every rose should obtain in spring with advantage, if the fresh food be spread over the roots of both to the width of several feet, according to the extent of growth of the plants. The more delicate large-flowered clematises from Florida and Japan, and their hybrids, usually bloom on the current year's growth, and may therefore be pruned with impunity when desirable in the spring; but others (such as C. Montana) blossom only on the long sprays of greenery formed during the past season, so that the plan of clipping them all into the perfect tidiness so dear to the heart of the ordinary gardener is apt to sacrifice the whole of the bloom on various clematises. There is only one safe rule when dealing with the many varieties and hybrids of this plant, i.e., to study and understand its nature before the pruning is attempted, and to act accordingly; but on no account should the ruthless shears of the gardener be allowed to touch it.

Clematises do best when their main stems are slightly sheltered, both from the frost and the full sunshine, by the foliage of a rose or other plant; so that these are specially desirable companions on an arch or a pergola, the rather bare stem of the clematis being hidden behind the leafage of the rose, when it may be allowed to grow tall, and throw

FOURTH WEEK IN JUNE

its delicate wreaths of blossom where it will amongst the roses.

From the middle of June to the end of September is the holiday-time in the garden, yet there is plenty to be done by those who care to do it, for Nature never stands still, and weeds never take a holiday, springing up on all sides whilst we sleep. Flowers fade rapidly, too, in the warm summer air, and if we would have a tidy garden the constant use of a stout pair of scissors, not only amongst the roses, but also the sweet peas, the campanulas, violas, and other blossoms is necessary; for seed bearing exhausts a plant far more than blooming, and when once it has perfected seeds, and so fulfilled the law of its Creator, it is apt to take a rest, or even to die, under the impression that it has done its duty, and may be relieved from further exertions. But deprive it of its power of ripening its seeds, and it will continue to flower again and again, always in the hope that it may be allowed to obey the law of Nature and replenish the earth; and in this way many plants (such as sweet peas) may be induced to blossom for months. same may be said of other members of the leguminous tribe, especially of the tall French bean (Phaseolus multiflorus), which is a perennial plant in tropical climates, although we treat it as an annual vegetable. The yield of these plants is greatly dependent upon the way it is gathered. Many pickers do not trouble to gather the pods which form first on the stem; as these, being near the ground—do not come so readily to hand as those more opposite the gatherer. Should these be left untouched, and allowed to ripen, the yield of beans will be small, for the strength of the plant will be occupied in perfecting these early seeds, and but little sap will reach the upper tendrils. If, however, the pods be removed regularly from the lower part of the plant, it will continue to produce fresh flowers until the frost cuts it off in the autumn, and its produce will be doubled.

Pinks, carnations, and the rest of the Dianthus family all need constant attention to relieve them of their fading flowers. The new dianthus (Lady Dixon) is a hybrid

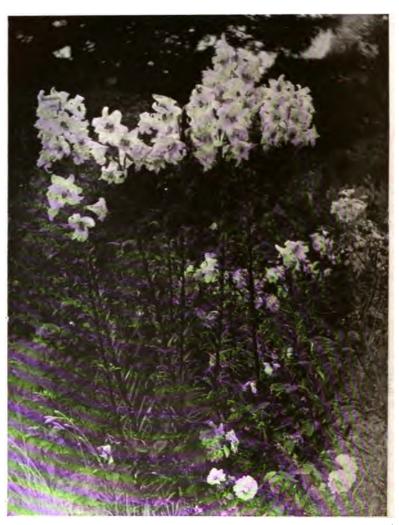
between a sweet william (Dianthus barbatus) and the wellknown carnation Uriah Pike, and it is a most interesting and valuable plant, which should rapidly become a favourite in our herbaceous borders, where its rich glowing rubycrimson blossoms, produced in abundance in June and July, are most conspicuous. The plant equally partakes of the nature of both its parents, being of medium height between the two (about 15 inches), with flowers from 2 to 3 inches across, thoroughly double, and of good shape and substance; the stems branch several times, and the flowers are borne in sprays of three or four, the buds being very much like those of the carnation. There is but little foliage whilst the plant is in bloom, as every shoot forms a spike of blossom; but that produced after flowering is in neat tufts, resembling that of both parents, though of a darker green than the leaves of a carnation. It is not well known as yet, but may be obtained from Mr. Douglas, of Great Bookham. It requires no staking, having strong and stiff stems (an excellent point in a flower), and it lasts well in water when cut.

FIRST WEEK IN JULY

MADONNA LILIES

These beautiful flowers do best when undisturbed, attaining great strength and beauty after the first two years. When necessarily divided, the work should be done in July, directly after the blossoms have faded.

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MADONNA LILIES.

CHAPTER XXV

FIRST WEEK IN JULY

ANY of the stately and beautiful lilies which now adorn our gardens were quite unknown to our ancestors, for they come from Japan and from China, which were, until recent times, closed countries. Even the Madonna lily (Lilium candidum), the oldest of these bulbs in British gardens, was not introduced into England until 1596 (when it was brought from the South of Europe), and the scarlet Turk's-cap, the Martagon lily, with a few others from Central and Southern Europe, soon followed it.

But in these latter days, when most of the earth's surface has been explored by botanists, we have a rich store of these magnificent flowers, both of the hardy and tropical species. The true lilies (excluding many so-called "lilies" which are not of the same order, such as arum lilies, water-lilies, &c.) have bulbs composed of scales, many of them being possessed of two distinct sets of roots—the thick, fleshy roots below the bulb (which are perennial, and should never be removed or injured), and the whorls of annual rootlets, which spring from the base of the stem as it appears, and die away with it gradually after the flowers are over. These two distinct sets of roots are also quite unlike each other in their requirements, the lower roots being impatient of any impure material, whilst the fibrous upper roots will assimilate the richest of food, preferring this in layers, for another whorl of hungry rootlets will appear a few inches above the surface of the first mulch, crying out for more food; and this may be repeated several times, each layer of manure adding much

strength and vigour to the plant, so that it is on the due consideration of the special needs of these roots, as well as of the bulb, that the successful cultivation of various lilies greatly depends. Lilies are not, as a rule, very delicate, as they are natives of the Northern hemisphere, from the west of California to the extreme east of Japan; but a few lilies from the mountains of Southern India, Burmah, Formosa, and the Philippine Islands, &c., are not sufficiently hardy to grow in Britain except under glass, and these are but too rarely seen in our conservatories, the difficulties of their cultivation having been much exaggerated.

Botanically, the liliums are divided into five sub-genera, the first of which (cardiocrinum) are distinguished by broad heart-shaped leaves, and the only member of that sub-genus with which we have to do is the tallest of all the lilies, L. giganteum, from the Himalayas, the Japanese type of this plant (L. cordifolium) being decidedly inferior to the Indian plant, which attains the height of 10 feet or 12 feet under good cultivation, producing a spike of tubular white lilies, slightly stained with green and purple. The large bulb usually dies after flowering, but it produces several small offsets before doing so, and it is necessary to cultivate these

carefully for a few years before they attain to flowering size.

The Giant lily requires partial shade, with deep soil with which peat, sand, and leaf mould have been mixed. The loss of the bulb after blooming more or less imperfectly is probably on account of the destruction of the lower roots for purposes of packing, from which all imported lilies suffer, and until our horticulturists set their faces against this disastrous practice of cutting off the roots of lilies before sending them out, we shall always be at a certain disadvantage in cultivating any but home-grown bulbs. Although hardy enough to grow in the open air in the South of Britain and Ireland, this lily should be planted in a greenhouse border in cold districts.

The second sub-genus (Eulirion) contains all the pure white trumpet lilies, such as L. candidum, the Madonna lily, L. Harrisi, &c., with other varieties of L. longislorum,

FIRST WEEK IN JULY

and the beautiful pink lilies Krameri and rubellum; and of these the first mentioned is the hardiest and best known, only requiring to be left alone in the garden from year to year to form fine groups of its stately blossoms. This lily will do well in city gardens, but the forcing to which it is sometimes unfortunately subjected for decorative purposes is very injurious to it, and whole districts have been affected by an infectious fungoid disease, which is probably the result of the unnatural conditions to which the plant has been subjected, and the deprivation of its roots before the bulb is purchased. Madonna lilies have no fibrous stem roots, and depend entirely on their permanent lower roots, suffering most severely when these are destroyed, so that these should never be cut off or disturbed unnecessarily. Bulbs from country districts free from the disease should be planted as soon as they have blossomed, i.e., in July, taking care to preserve the whorl of leaves which then appears at the base of the stem, and, if possible, preserving the lower half of this also until it has ripened away gradually. Diseased bulbs are incurable, and should be burned at once, or they may affect others.

L. Harrisi, the Easter or Bermuda lily, as it is called, is more safely forced for early bloom, where good whole bulbs can be secured, with their roots uninjured in any way. But this is difficult, except in the case of home-grown bulbs, and these are the most desirable in every way, although there are few horticulturists who supply them as yet; and in private gardens the bulbs are too often thrown away after they have bloomed, when they should be carefully cultivated, giving them plenty of sunshine, with enough water to prevent any drooping, until the whole of the stem and foliage has ripened off, gradually and thoroughly, for the leaves are necessary to the plant whilst the important process of maturing the blossoms for next season is going on in the centre of the bulb, this process always taking place directly after flowering. When all the greenery is gone, the bulb should be kept fairly dry for a time, but never must it be dust-dry, or the roots will shrivel and decay. During this

time of rest the bulb can be re-potted, placing it rather low in the pot, with thorough drainage and a compost of good loam, leaf mould, and peat (but no fresh manure), and covering it only to the depth of I inch, the upper space in the pot being reserved for the rich top-dressings which will be added as the new stem grows. After growth has begun, more tepid water will be needed, with liquid manure as soon as the buds are apparent; and no insects must be allowed to infest these, or the purity of the flowers will suffer. The temperature for forcing L. Harrisi should not be excessive,

especially at first.

These directions apply also to the Nilgiri lily (L. Nilgirense), which has been considered one of the most difficult to manage, as it requires to be kept under glass, being delicate. But we have been quite successful in obtaining young bulbs from the original imported roots; these were grown on with care, according to the directions given above, and the result is a number of good flowering bulbs in full vigour and health, which increase in size and beauty This lily requires many months in which to ripen its bulb, the last greenery disappearing in February; during the whole of this time it is supplied with water sufficient to prevent the foliage from drooping, and the pots stand close to the glass in a warm vinery. The creamy-white and highly fragrant flowers of the Nilgiri lily are much larger than those of L. Harrisi, and are produced later in the year. Lilium sulphureum and L. Krameri, in pale pink, may be managed in the same way; L. rubellum is more robust, and has been known to survive in the open air in favoured districts; but neither of these is very hardy.

In the third sub-genus (archilirion) are embraced some of the most beautiful of the hardier Japanese lilies, i.e., the golden-rayed lily of Japan (L. auratum), with its fine varieties rubro-vittatum and platyphyllum, &c., which produce enormous blooms, 10 inches across, in the garden

yearly.

The exquisite blossoms of the speciosum group of lilies also belong to this sub-genus, and few plants can vie with

FIRST WEEK IN JULY

their beauty, whether the pure silvery white flowers of L. s. Krætzeri are in question or the crimson-spotted blooms of L. s. melpomene, or L. s. magnificum. Lilium Henryi (sometimes called the apricot speciosum lily, although it is a distinct species) is specially suited for growing in the border, where, under good conditions, it will increase in strength yearly. A bulb which has been in the writer's garden for six years is now throwing up a spike of many flowers, 3 inches in circumference at the base yearly, with smaller flowering bulbs around it. L. tigrinum (the tiger lily) is nearly related to L. Henryi, and this is a lily which presents no difficulties of cultivation, increasing mightily in cottage gardens if left alone. L. tigrinum splendens is a decided improvement on the older form, and should be grown in preference to it. These lilies (as well as L. Henryi and some others) are easily propagated by means of the small black bulbils which form at the axils of the leaves, each of which will be found to include a tiny rootlet if removed from the ripening stem in the late summer. These bulbils should be planted 2 inches apart in a well-drained box of light sandy soil, which can stand in a cold frame for the winter and in the open air in summer. When their second spring arrives the young lilies should be planted out in a nursery border 6 inches apart, where they may remain until they attain flowering size, when they can be planted in groups in the border.



SECOND WEE	K IN JULY	

ABUTILON VITIFOLIUM

This garden shrub is more hardy than the greenhouse abutilons, and produces a mass of flowers in a sheltered position.

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CHAPTER XXVI

SECOND WEEK IN JULY

THE great family of the mallows (malvaceæ) contributes many beautiful flowers to our gardens, and the newcomer, Abutilon vitifolium, is worthy of the Its pure white blossoms, although they are very much like those of the ordinary greenhouse abutilon when in the bud, open out broadly—each bloom being 21 inches in diameter—and as they are produced in sprays they are remarkably graceful for cutting. The plant (A. vitifolium) is a hardy shrub, growing to the height of about 5 feet before it flowers; it is easily raised from seed, but the young plants need protection under glass for the first winter (or longer, possibly, in a severe climate), after which they can be planted in a sunny glass porch, or in a sheltered sunny border in the open air, or against a south wall, but they do not produce their blossoms for several years. The foliage is distinct, being light green in tint, silver-lined, and vine-like in shape. This abutilon will probably be largely grown for wreaths when better known, as its paper-like flowers are of the purest white, even the stamens being white also. Ordinary garden soil suits it, but, like the rest of its kind, it is a hungry plant, requiring a mulch of rich soil yearly in the spring. It is certainly one of the best additions to our gardens during the last few years.

The beautiful white alstræmeria (Pelegrina alba, the lily of the Incas) is in full bloom. Alstræmerias are most useful flowers for cutting, and the more hardy varieties (chilensis, aurantiaca, &c.) do well in the garden in the south of England; but this, the loveliest of all, should be

grown in a rather large pot and sheltered from frost in winter (though with as little fire heat as possible), when it will open its buds towards the end of June. The arrangement of the petals is singular in these flowers; two of the three narrower petals are spotted with green, giving the blossoms something of the appearance of an azalea, but the petals are arranged more like those of a pansy. The orange alstræmeria (aurantiaca) and the Chilian hybrids, in tints like those of Azalea mollis, form grand groups in the border, and are quite hardy in Devonshire. In cold districts they should be covered in November with a conical pile of ashes, substituting plenty of rich leaf-mould for this in March. They increase yearly under this treatment, and are excellent for table decoration, as they are specially beautiful by artificial light. The lily of the Incas should be placed in the open air after flowering, choosing the warmest, sunniest corner, and can be shifted into a pot, two sizes larger than the last, in September, after which a frame (or a cool greenhouse, from which frost is just excluded) will suit it well; but in severe weather it will need to be moved to a slightly warmer place, as frost is fatal to it—for it comes from South America, and is by no means hardy. Alstræmerias can be easily raised from seed in slight warmth in spring, or now in the greenhouse; the seeds should be sown in a box about 6 inches deep, well drained, and filled with light soil, leaf-mould, sand, and charcoal. The roots are long, and much like a pound of "rushlights" in shape; it is therefore a good plan to knock the bottom off the box before planting out the seedlings (which should be grown in the box for a year), as in this way it is possible to avoid injuring these curious roots. Plant them rather deeply in September or October, and protect them with ashes or leaves, as before mentioned; the position should be sunny and well drained, with deep soil, to which plenty of leaf mould has

Now that flowers are plentiful, a few words on the best system of packing them for the post may be useful. As a rule, double flowers travel better than the single varieties; and

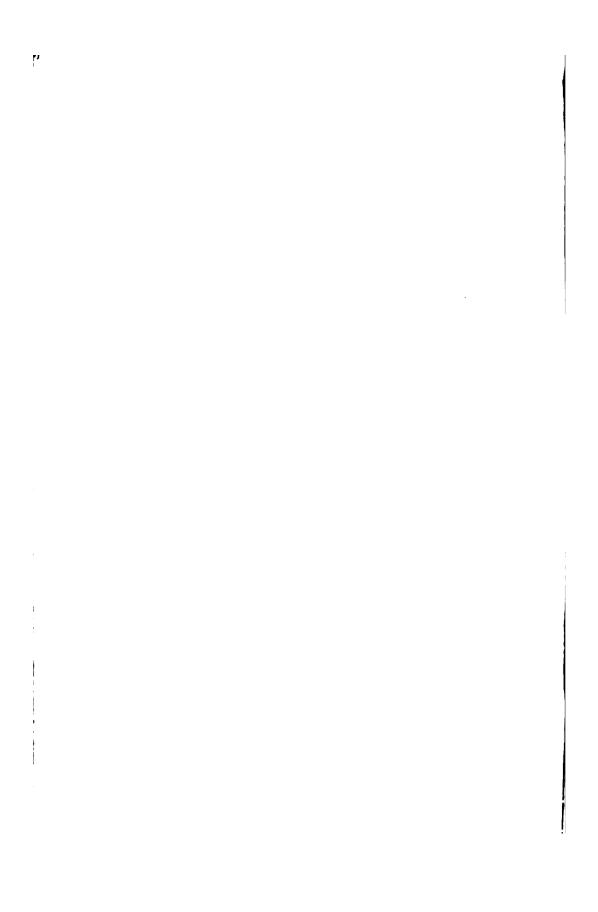
SECOND WEEK IN JULY

all should be gathered either in the evening or in the early morning (before the sun has much power), then placed in water for at least half an hour before they are packed. strong cardboard-box, with metal corners, is the most convenient for the post, and it should not be more than 4 inches deep, and long enough to take the stems of the flowers without bending them. Line the box with rather thin paper, and on this strew a layer of long, fresh grass, or clean, moist moss. Then pack in the flowers as thickly as possible (so that there is no room for them to stir), laying them in separately in the case of roses, or large blooms, and filling up all the corners thoroughly. Another layer of grass should cover them, and paper can be laid over that. Where long grass cannot be obtained, a sheet of blottingpaper, well moistened, will be useful both under and over the flowers in hot weather. But a knowledge of the exact times of trains and posts should also be obtained in the country where these are not plentiful, for it is a great mistake to give flowers a long journey in the heat of the day, if they are to arrive in a thoroughly fresh state.

Sweet peas, carnations, pinks, gladioli, lilies-of-the-valley, double pelargoniums, pyrethrums, violets, and all the flowers of daisy shape are amongst the best of travellers. Roses should be cut when half-open, and many flowers (such as azaleas, salvias, &c.) can scarcely be sent safely, even well packed, as they drop their blossoms so easily. But a few fresh flowers are such a pleasure to an invalid that all who have plenty should not forget to remember those who are

not so fortunate.

Generosity with regard to cutting one's flowers brings its own reward, for the plants will produce many more blossoms if relieved of a part of their first bloom than when these are left uncut; this being specially true of roses, sweet peas, and many other flowers, and if we desire to have plenty of blossoms in the autumn we shall cut them constantly now.



THIRD WEEK IN JULY

PICOTEE, "MR NIGEL"

Picotees are distinguished from other carnations by the distinct edge of crimson-pink or scarlet which surrounds each petal. The yellow-ground picotees, of which this is one, are more valuable than those with white petals.

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PICOTES MR. NIGEL

CHAPTER XXVII

THIRD WEEK IN JULY

ITH July the grand display of the irises, which has lasted since the winter, is over; and the latest of all, Iris Kæmpferi, is, perhaps, the most magnificent.

This bog iris, from Japan, has many varieties in delicate tints of violet, purple, and crimson, but the loveliest of all are, perhaps, the pure white blossoms with golden centres, such as Seirin.

Then there are our own beautiful water irises (I. pseudo-acorus), which are most effective, too, flowering in May, a month or two before the Japanese varieties, which are at their best in July or early in August in cold localities. Both are, however, perfectly hardy; being herbaceous, they disappear below the soil in autumn, and fear no frost while dormant. Iris Monnieri, a plant from the islands of Rhodes and Crete, is even taller than the Japanese varieties, rising to the height of 4 feet, and producing golden yellow blooms; this is an excellent plant for the centre of a group. I. monspur, too (a hybrid of I. Monnieri and I. spuria, a Siberian plant), is decidedly handsome, and may well be added to a collection of the finest bog plants, with such hybrids of I. sibirica as Blue King and Snow Queen, respectively in violet and in white.

These semi-aquatic irises can be grown in tubs partly sunk in the side of a bank, the front part of which is hidden by rough rock work, in which trailing rock plants, such as creeping Jenny (Lysimachia nummularia), dwarf campanulas, ferns, mossy saxifrages, Phlox decussata, and many other plants are cultivated.

Such a group of irises is very handsome at the side of the lawn; for they grow tall, and their flowers, some of which are 8 or 9 inches across, are very conspicuous at a distance, the surrounding sward setting them off to the best advantage. At the bottom of the tub (in which should be one or two small holes to allow of the gradual escape of water) we place 6 inches of drainage, broken crocks of glass, china, &c. (which can usually be found in plenty in every house, unfortunately), covered with cinders and ashes. Over the drainage we place rough pieces of peat, not too small, and on these the soil which is specially needed for the bog plants grown in the tub. In the case of these irises a compost of good loam, cow manure, and leaf mould is the most suitable soil; and they are mulched yearly in spring, just as they begin to appear, with plenty of cow manure. They do best when undisturbed for two or three years. If they then show signs of having exhausted the soil, they should be taken up in October, divided, and replanted.

There is much to be done now in supporting the carnation blossoms, which are not easy to keep in order. Porter's coil stakes have the merit of avoiding the stiff appearance which is given by ordinary sticks. They are painted light green (of the same tint as the stems of carnations), and do not attract the eye; moreover, no tying process is necessary where these are used. But if green-dyed wooden stakes or ordinary sticks are preferred, West's green raffiatape is decidedly superior to the usual raffia, being neater, stronger, and excellent in every way. It is sold on reels, too, with a convenient hook, by which the reel can be attached to a buttonhole of the coat, so as to be readily available for use.

Some of the finest of the newer carnations are the following: King Solomon, in ruby velvet; Daffodil, yellow; Francis Samuelson, rich apricot; Lady Hermione, bright rose colour; Midas, apricot flushed with scarlet; Cæsar and Pompey, a handsome fancy carnation in scarlet and maroon; Miss Wilmott, coral-pink; Duchess of Wellington, deep lavender; Carabas, pink; Amphion, a specially good yellow-ground picotee; Mr. Nigel, a picotee with deep

THIRD WEEK IN JULY

edges in crimson; Pelegia, pink and lavender; and Taillifer, salmon-pink.

Carnations need plenty of drainage, and they do best in raised sunny positions in the garden; for they will endure great dryness much better than too much damp, and when grown in pots they must have plenty of air, and very little (if any) fire heat, except the Malmaisons, which are rather more delicate, and will not stand frost. The water supply of these carnations should not be left in careless hands, for an overdose in winter may easily be fatal to them, and they should always be kept rather dry than saturated. Grown in a cold glass porch or greenhouse they are charming, and they will then produce their most perfect blooms, flowering earlier than in the open ground, and escaping the serious injury done to their blossoms by storms of rain.

Layering is now beginning, for it is a mistake to leave it until too late in the season, if strong young plants are desired to be placed in their flowering quarters in October. plant to be operated upon is first surrounded (after loosening the upper soil) with a small mound of fine, light soil; the new growths (without bloom) which naturally extend over this are then selected, and the leaves on these are cut off for about half the length of the stem. A notch half through the joint which reaches the ground most easily is then made with a penknife (cutting upwards from below), and the layer is secured firmly into the fresh soil by means of wires (like hairpins) sold for the purpose. Care is necessary to avoid cutting the stem too deeply; but if an accident should occur, the cutting can still be utilised, placing it (with others) near the edge of a 5-inch pot of light soil, sand, and charcoal dust, and keeping it under a hand-light or in a frame, as a certain amount of moisture and of shade are both needed in this case. Carnation slips can also be rooted in the border, if covered with glass, putting them into the soil to the depth of 3 inches, and making them quite firm. The glass should be removed in September, and the plants placed in their flowering quarters in October.

Carnations are excellent town plants, as they enjoy soot in

the soil; for growing in boxes on a balcony they are most desirable, too. They are not too particular as to soil, but no wireworms must be present in it, as these insects are their special enemies, and soot in the proportion of one-twentieth of the whole (or less) may be added with advantage to a compost of good loam, two parts to one part of leaf mould, when these plants are grown in pots or boxes. Fresh manure is most undesirable, as it is sure to contain insects; but thoroughly dried material from a hot-bed may be added with advantage, or Clay's Fertiliser in small quantities.

It is a good plan to mix this compost some weeks before it is needed, adding the soot (and in the case of heavy soil, sand and charcoal, or old mortar crushed), and allowing the whole to become quite dry, when all insects will die or

leave it, and the soil may be safely used.

Many plants now require staking, and much tidying up is needed in the garden to keep pace with the falling roses, the fading Canterbury bells, foxgloves, and sweet peas, all of which should be cut off before they produce seed, if a succession of their flowers is desired.

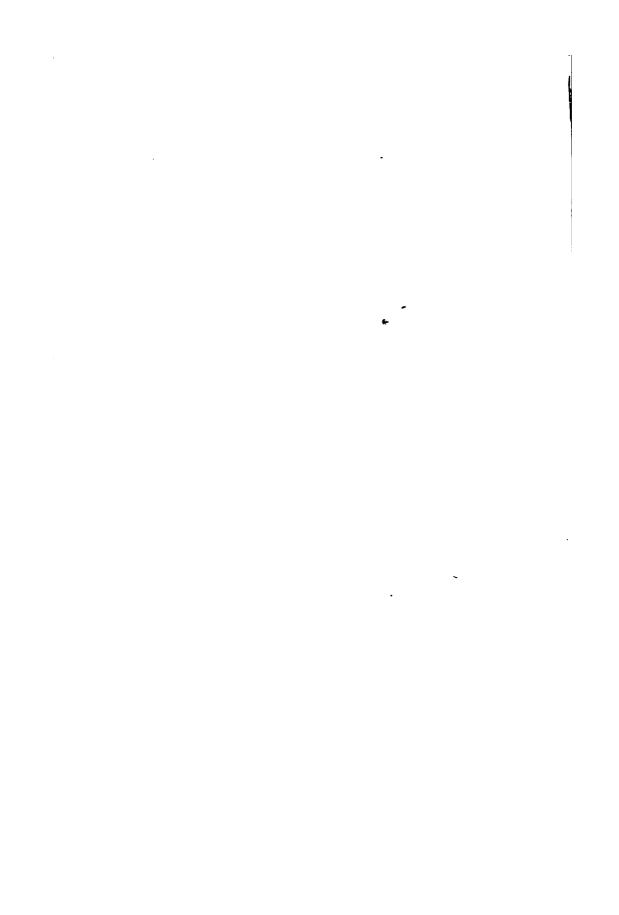
For liliums (and other tall flowers producing foliage on the stems) West's grip stakes are excellent, as they are provided with movable pieces of metal which clasp the stem of the plant; and for tall dahlias wooden stakes, placed in

position when the roots are planted, are necessary.

Staking is a fine art which should be thoroughly mastered by those who love their flowers. The forest of sticks too often to be seen in chrysanthemum pots should be avoided at all cost, for their stiff and ugly appearance is calculated to spoil the look of any flower, however beautiful; yet blossoms must not be allowed to fall about, and various plans of supporting them, and yet preserving their graceful outline, must be adopted, according to their growth and form. Much can be done by judicious looping of the branches to one or two stakes near the stem of a chrysanthemum, especially in the case of the decorative varieties, where each individual bloom is of moderate size, and it therefore

THIRD WEEK IN JULY

can hold up its head as it should. The chrysanthemum for show purposes is not in the category of garden plants, and under the unnatural conditions to which it is subjected, needs to be stiffly supported; but as a general rule, flowers should hang free, their lower stems only receiving support, and the stake should never be obtrusive to the eye, or so tall as to show above the plant.



FOURTH WEEK IN JULY

ROSE, "RÊVE D'OR"

Amongst the copper-yellow climbing roses few are finer than Rêve d'Or, a robust variety with blooms much like those of W. A. Richardson, and foliage in autumn of a deep crimson. It produces a mass of good blossoms twice in the season.







Rose Réve d'Or

CHAPTER XXVIII

FOURTH WEEK IN JULY

ANY beautiful roses have been added to our lists during the last few years, and no group of these plants has been more strongly reinforced than the climbing roses, for not only have there been valuable and conspicuous additions amongst the larger flowered varieties, but also a number of hybrids of the Wichuriana rose, and also of the sweetbriar class have been introduced.

The original type of Rosa Wichuriana (a Japanese rose introduced in 1893) is small, with single white flowers, a plant of prostrate habit, suitable specially for draping the rock border; but this plant, having been hybridised with certain roses of larger size and brilliant colour, has produced very beautiful cluster roses, double, semi-double, and single. All the Wichurianas are distinguished by a mass of shining foliage (which in many cases is evergreen), and also by a habit of throwing up a quantity of tall stems yearly from their base, which has given them the name of the fountain roses, as these growths, if tied to a stake to the height of 4 feet from the ground, take the form of water thrown up from a jet.

The best of these hybrids are also luxuriant enough to climb high and cover an arch with their clusters of bloom, Dorothy Perkins, an American introduction, being the prettiest of them all, with innumerable clusters of well-shaped double flowers in a specially clear shade of shell-pink. This plant is quite hardy and remarkably robust, so that it may be trusted to cover an arch rapidly with proper cultivation.

It makes an effective pot plant, flowering profusely in all positions; whilst it can also be used as a fountain rose, showing to great advantage in this way on a raised bank. Another good Wichuriana hybrid is Edmond Proust, in pale pink with a carmine centre; this is also double, with large flowers, and Auguste Barbier is a Wichuriana with buds which open into coral-pink flowers of good double shape and size.

The Farquhar is a hybrid between the original Wichuriana rose and the well-known Crimson Rambler. This is a strong climbing plant, with the habit of the latter rose, but the conical trusses of bloom are pink, changing to white as they expand. A very beautiful single rose of the Wichuriana type is Jersey Beauty, with specially fine shining foliage and creamy white blossoms, each displaying a mass of showy yellow stamens. Pink Roamer is a very floriferous single flower, but the blooms are smaller, and the colour approaches that bluish shade of pink which is so undesirable; but François Foucard is one of the best of the semi-double varieties, being in yellow, shading to white as it expands. All these fountain roses are new, and but little known as yet, but in a few years they will no doubt be as popular as they deserve to be.

Then there is a new and fine Chinese rose (R. semper-florens) named Field Marshal, with large handsome blossoms in deep crimson, which still retains the delightful habit of flowering from early spring till Christmas, only to be found in these flowers of the old monthly rose type. This should be grown on a south wall if possible, where it will have protection for its early and late blooms, as these are valuable for cutting. It can also be grown under glass, choosing a cool greenhouse for it or a glass porch, where it will do well without much artificial warmth.

Another recent introduction of the first class is Golden Queen, a hybrid from Rêve d'Or, which retains the extraordinary floriferousness of its parent, but has blossoms of a deeper tone of apricot shaded with copper. It is also a rapid climber, and its flowers are double and of good shape, forming a glorious mass of blossom in June. Tea Rambler, too, is very beautiful, having the habit of the climbing

FOURTH WEEK IN JULY

multiflora roses (such as Crimson Rambler) with exquisite little blossoms, tea-scented, in shades of apricot, carmine, and copper, very difficult to describe; and a white Rambler has appeared under the title of Perle de Neige, which continues to blossom in autumn as well as in July. The Lion is a seedling from Crimson Rambler, producing masses of single flowers in crimson-scarlet; and Aglaia is in canary-yellow, a striking contrast to the rest, but it takes some years to settle itself before it blossoms. Blush Rambler is as vigorous as Crimson Rambler, but the blooms are semi-double, in soft

apple-blossom shades of pink and white.

Amongst the larger climbing roses Lady Waterlow is conspicuously lovely in brilliant pink, and Noëlla Nabonnand is also most effective, with deep red velvet-like blossoms of fine shape. This rose is distinguished not only in colour, but by its rich fragrance, which resembles that of a La France rose, a charm which is sometimes lacking in our modern roses, some of the new sweetbriars even being deficient in it; but Lady Penzance, the loveliest of all Lord Penzance's sweetbriars, has such fragrant foliage that the scent is observable after a shower at some distance from the plant. The well-shaped single blooms of this rose are in a rich tint of coral-red, with an apricot centre, and it is altogether a most fascinating plant. Lucy Bertram is another very desirable sweetbriar, with large semi-double blossoms in brilliant carmine-crimson, having white centres and conspicuous yellow anthers. Rose Bradwardine is in clear rich pink, Lord Penzance in copper-yellow, and Green Mantle in white tipped with crimson. Of the pale pink varieties it may be said that few of them excel the original type in beauty, though several are extremely pretty and floriferous.

One of the most charming of climbing roses of the Noisette type is Alistair Stella Gray, producing many clusters of medium-sized blooms, which are yellow in their first stages, changing to white as they expand, thus giving a variety of tint on each spray. This rose is vigorous and hardy, throwing up long shoots yearly from its base, which are covered with flowers during the following season; this

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is not such a recent introduction as others mentioned above. but it is not common. Some of the best of the older roses to cover a wall or a pergola are Gloire de Dijon (which will grow even in a city garden and blossom, though the aspect be north); Reine Marie Henriette (sometimes called the Red Glory); William Allan Richardson, covered with rich clusters of deep apricot flowers during the summer; Rêve d'Or, an extraordinarily floriferous rose in a slightly paler shade; Cheshunt Hybrid, with beautiful crimson flowers; Paul's Carmine Pillar, a single rose; and Maréchal Niel, which, though usually grown under glass, may be planted in a south-western position (well sheltered from the north-east winds) in the open air, but should have the protection of a Climbing roses of all kinds need plenty of nourishment to do well, for they should produce a large quantity of vigorous new wood yearly, and cannot be expected to do this when in a starving condition. Too often they are planted in a gravel path close to a house wall, and seldom, if ever, receive the mulch of rich soil over their roots which should be given to all roses in spring, when their foliage, just appearing, craves for food to form fine flower buds.

But this does not mean that the soil in which roses are planted should be heavily manured, for there is danger in doing this, the roots of a rose being specially sensitive to contact with any impurity. Good roses can be grown in almost any locality if their needs are well supplied, and to do this it is necessary to study the nature of the soil. no doubt that roses do best in a rather heavy loam, but a light soil can be made equally suitable for them by proper Those who intend to plant climbing roses at the end of October will do well to lose no time in preparing the ground, for it should be thoroughly dug, and any admixture of manure necessary for it must not be made at the time of planting, unless the manure used be then thoroughly decayed. The top spit from an old pasture affords the best of all soils in which to plant roses; and if this material can now be secured (each strip cut about 4 inches thick and rolled up) it should be stacked in a dry place until the roots of the grass

FOURTH WEEK IN JULY

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are dead, when the turfs can be pulled to pieces, or chopped up with a spade at the time of planting. At the bottom of the broad and wide hole which must be dug for each plant, drainage of broken crocks and ashes may be necessary in wet localities. Over this the turfy loam should be placed, laying over it a few inches of fine loam, in which the roots of the rose should be extended in their natural position, as horizontally as possible. The too common plan of inserting the roots of a rose perpendicularly in a small hole (as though it were a cabbage) is responsible for many failures; and it is equally fatal to fill in the hole with rank manure, which is sure to set up canker in the roots of the plant, and so seriously weaken, if not destroy it. Slaked lime should always be added to the compost for a rose, as it is very purifying and sweetening to the soil, enabling the rose to absorb its elements as food. Soot, too, is a suitable addition to a rich mulch of hot-bed material for the spring, but it should not be given at the same time as lime, as they chemically disagree.

Having soaked the roots of the rose in lukewarm water for half an hour, they should be spread out in fan-shape, covering them with a few inches of fine loam, and treading them fimly into the soil, taking care that the collar of the plant (i.e., the point at which the stem and roots meet) is about an inch below the soil. If too deeply covered, the rose will not thrive; yet if the collar, which is a tender part of the plant, be exposed, it will probably decay, and the rose will die. In filling up the hole after planting, it is desirable to raise the soil about 3 inches above the rest, as it is sure to settle down, and if made level will quickly sink and so accumulate water around the rose, which is very injurious to newly-planted roots, especially in winter. No mulch of manure should be spread on the surface of the rose in autumn, for the old idea that this afforded warmth is a mistake, and dormant roots require no extra nourishment. The shoots of the rose should be at once fastened to the wall or the arch on which they are to grow, for wild autumnal winds soon injure them, and the plants, if well put

in, should not require a mulch of manure during their first spring, although a little leaf-mould and soot may be added to the surface in March.

The pruning of climbing roses in the garden should be done in the early autumn, and if then carried out, they will need but slight pruning in the spring. A portion of the oldest wood can be cut away as soon as the plant has flowered, to give air and light to the younger growths; and these should be trained sideways if on a wall, as they bloom more evenly when in a horizontal, rather than a perpendicular, position. Autumn training is usually necessary in the case of the more rampant climbers, as their new shoots are otherwise injured by the winter winds; but it is also as well to look over the climbing roses early in April, when any half-dead or exhausted wood should be removed, and the young growths be tied in.

FIRST WEEK IN AUGUST

NARCISSUS POETICUS ELVIRA

The Narcissus of the Poets is a lovely flower in white with a glowing eye. It has been hybridised with one of the Polyanthus Narcissi, the result being named Elvira, with many blossoms on each stem, instead of one or two.

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NARCISSUS POETICUS ELVIRA.

CHAPTER XXIX

FIRST WEEK IN AUGUST

THE catalogues of winter-flowering bulbs, which are now coming in, are very tempting, and for Christmas blooms we must lose no time in ordering. It is a great mistake to put off getting one's bulbs till October (or even November), and to think that a little extra warmth in the hot-water pipes between that time and Christmas will make up for our delay. Bulbs kept out of soil soon lose their vitality, besides which, the best forcing for early work is done by the sunshine of September in the open air, and without this healthy action of the roots it is useless to expect good blooms from the bulbs.

Roman hyacinths, paper-white, and double Roman narcissus, sky-blue scillas, Van Thol tulips, and bulbs of the Chinese joss-flower (Narcissus tazzetta) should now be put in for the earliest work, quickly followed by the larger hyacinths; plenty of dwarf early tulips, both single and double; daffodils, in variety; and a number of other fascinating bulbs, such as the early irises, freesias, ixias, &c., not forgetting the Bermuda lily (Lilium Harrisi), which is most valuable at Christmas-time. But so many of these last bulbs are injured, if not destroyed, by the removal of their lower roots (probably for convenience in packing for export), that no one should purchase them without the proviso that the roots must be intact, as the bulbs are almost useless for at least a year without them.

Sutton's Harbinger, the gay little tulip which decorates the table at Christmas, the various Van Thols in scarlet and yellow, white, rose, &c., and Tulipa Greigi, with large

scarlet blooms, will all bear a little forcing, as they naturally produce their blossoms earlier than the rest; but the great desideratum in the cultivation of early tulips is to start them in good time. Unless the bulbs are allowed to form strong roots before their foliage begins to move, failure is likely to ensue; and for this reason those needed for early bloom should be planted as soon as they can be obtained in the autumn. The tulips in pots which are offered for sale early in the year are not grown in pots, for it is almost impossible to induce three or five bulbs to open their blooms simultaneously, and amateurs are often disappointed at the different appearance of their own potted bulbs, which will persist in opening their buds irregularly, with the effect that some of the flowers are over, whilst others are not yet expanded. The secret of the matter is this—that early tulips should be planted in boxes of light soil, about 8 inches deep, each bulb 4 inches from the next, placing them in the open air and the full sunshine during their first period of growth, although the bulbs should be thickly covered with sand or fine ashes, first laying over them enough clean moss to prevent contact between the ashes and the bulbs, which are placed just below the surface of the soil. One thorough watering after the bulbs are put in will usually be enough, as the autumnal rains will keep them moist; but during a dry season it may be necessary to water them occasionally. As soon as the green points of the bulbs appear (on examining their state by raising a corner of the covering of the ashes and moss), this covering should be removed, and the boxes may be lifted into a cool greenhouse, gradually increasing the warmth given, with plenty of tepid water, light, and air, until the colour of the buds becomes visible. Each bulb can then be raised separately from the box and arranged with those which are in an equally forward state. Packed into china bowls or quaint receptacles of various kinds, they are invaluable in the room and on the dinnertable, and a little fresh moss, to cover the bulbs, with lukewarm water, will complete their needs. One of the earliest to open (after those already mentioned) is Silver Standard,

FIRST WEEK IN AUGUST

a fine flower in rich carmine-crimson, flaked and striped with white. Appleblossom, in the loveliest shades of pink and white, too, is as precocious, and Sutton's White Forcing tulip, with Montresor (in clear yellow), Pink Beauty, and La Remarquable (in an extraordinarily rich shade of deep red), which are all amenable to slight and gradual forcing if well rooted to begin with. But most of the rest, both of the single and double varieties, do best without fire heat, so that a frame, a window, or a cold greenhouse will suit them well. Most beautiful are those in pale pink, such as Queen of Roses, Albano Murillo, and Salvator Rosa. Maréchal Niel is the name of a fragrant double tulip in delicate yellow tints; La Candeur is in white, and Blue Celeste in violet, all these being double. For a window-box in spring they are very effective, blooming a little later than those under glass.

Tecophilæas, very pretty Chilian bulbs with blue flowers. something like those of a crocus, can be grown in pots without much fire heat, and they blossom in March. T. leitchlini is one of the best, with a white centre; T. cyano-crocea is in a deeper tint of blue, and both are fragrant, with a scent something like that of violets. The Kaffir lily (Schyzostylis coccinea, which is also called the winter gladiole) is a dark crimson flower, which is most useful for cutting in November and December. It increases itself rapidly in this gravel soil if left undisturbed for a few years, but the roots become too close sometimes, and have to be separated every third year, replanting them in fresh soil in the spring. Clumps may, however, be raised from the garden in the autumn to flower in the greenhouse, where their bright colour is very welcome in winter; after flowering they should be allowed to ripen off their foliage gradually, not wanting for water until this process is completed, and the roots can be planted out in April, placing each a few inches from the next, in a well-drained, sunny border.

Ixias, babianas, and early-flowering gladioli, can also be started at once, with others of the many irids from

South Africa, giving them no fire heat in winter, but merely protection from the frost.

Freesias, for blooming at Christmas I should now be taken in hand. The corms (which have been standing in their pots of last season close under the glass roof of the vinery) should now be shaken out and sorted, choosing the largest of them for pot work, and planting the many smaller corms formed around those which are of flowering size in a well-drained box about 8 inches deep, for use the following year.

Narcissi in variety may be chosen, for we can never have too many daffodils. Besides the polyanthus narcissi, which are so fragrant and delightful in the middle of winter in bowls,2 there is the wild garden to consider, where great yellow daffodils should "bring sunshine into a shady place." There are the window boxes, too, and the borders, all of which will be the brighter for these lovely flowers. The Poet's Narcissus in one of the sweetest, and this has of late years been reinforced by various hybrids, Elvira being the name of one of the best of these—a hybrid between a polyanthus narcissus and N. Poeticus, with many flowers on each stem.

Chionodora Lucillæ, in sky-blue with a silver star in the centre, is a fascinating flower too. This bulb is an excellent one to naturalise in the grass, for it produces seed in abundance (as do some of the daffodils), and so propagates itself

when once planted.

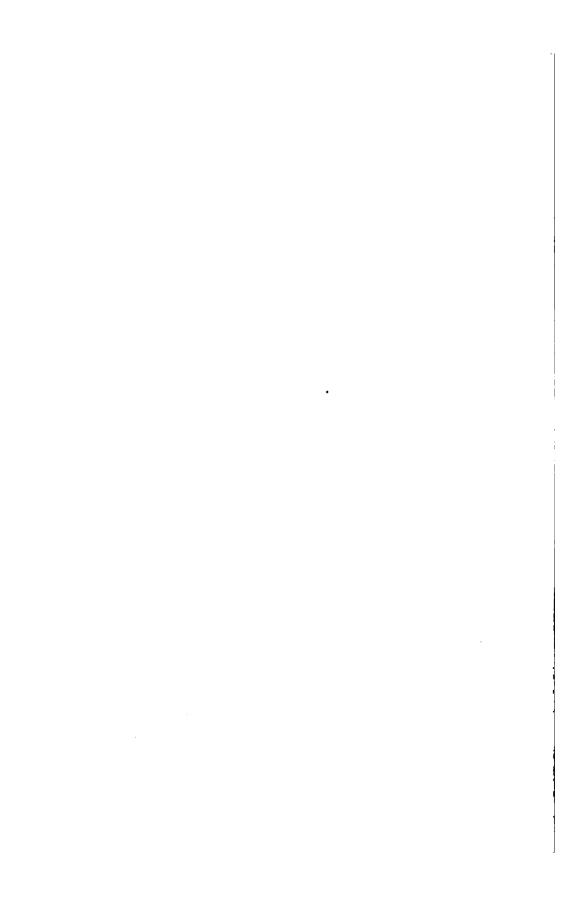
The finer varieties of the self-tinted crocus (in deep violet, pure white, golden yellow) and various striped blossoms should decorate the garden very early in the year. These bulbs, too, multiply themselves quickly in the soil, when they are left undisturbed, and can be grown as edgings to the borders with good effect, leaving spaces between each group of bulbs for summer flowers, which will obviate the need to disturb the crocus bulbs at that time.

Many irises (especially those for winter flowering, such as I. alata, I. persica, I. histrio, &c.) can now be potted, or planted, keeping the roots almost dry until growth appears. A cold frame is the best place for these plants, whilst later-

FIRST WEEK IN AUGUST

flowering irises (xiphion, xiphioides, &c.) will do best in the open borders. But they should be planted as early as possible in the autumn, for bulbs of all kinds quickly lose vitality when kept in paper bags, and greatly prefer to be surrounded by soil.

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SECOND WEEK	IN AUGUST	
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A TUBEROUS BEGONIA

These beautiful flowers are indispensable in the conservatory, and can be raised from seed during July and August without fire heat, if carfully treated. They produce both double and single flowers on each spray.

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A TUBEROUS BEGONIA.

CHAPTER XXX

SECOND WEEK IN AUGUST

TOW that the spring blossoms are over, the conservatory depends largely on the gesneraceous plants and tuberous begonias for its summer decoration. the scarlet and pink geraniums (which are so useful for winter flowering) are now in the open air, and gloxinias, streptocarpi, tydæas, achimenes, and other less well-known members of the great gesneraceous family take their place, with begonias, liliums, cannas, and other plants in variety. Baskets of achimenes and begonias hang from the roof under the half-shade of the climbers (for they do not like the full sunshine), and the pure white bells of the crinum of South Africa (C. capense) are conspicuous amongst the smaller plants. Constant rearrangement is necessary in the greenhouse at this time of year, for growth is rapid, and plants are apt to injure each other if allowed to touch; moreover, they will turn their faces to the sunshine in whatever position they are, and this sometimes needs attention.

The climbing roses on the roof, the oleanders, and the ferns near the ground will all be glad of a light syringing every evening; but this must be done with care and judgment to avoid injury to the open blossoms below them, gloxinias especially suffering severely from a douche bath.

Each warm day in summer the conservatory is damped down at noon, as well as the vineries. This is of great use to the gesneraceous plants (all of which need moisture in the air) as well as to the climbing roses, and these must be care-

tully tied down and trained beneath the wires on the roof, or they are likely to become a prey to red spider, which

delights in dry heat.

Air is constantly given to the plants by leaving the upper ventilators open; in fact, we make a rule of keeping at least one of these ajar, even in winter, unless the weather should be severe, for with hot-water pipes in full force night and day it is far better to arrange for the constant escape of the heated air rather than to allow the atmosphere to be stuffy and close; as the want of fresh air results in weak health, whether it be in the case of human beings or plants, and both become too sensitive to chills if kept too close. On the walls there is a mass or heliotrope, which is rarely entirely without bloom, with tacsonias, passifloras, Jasminums gracilis and grandiflorum, Asparagus plumosus, and the lovely blue plumbago (as well as roses) under the roof.

All need to be trained and kept down from the glass, for their flowers naturally seek the sunshine. Passifloras are apt to become too luxuriant when well established, and it is a good plan to cut out the weaker growths occasionally to let light and air into the rest, and so to ripen them thoroughly. Many of these plants bloom best upon the points of their long hanging trails; they should not, therefore, be pruned back in the usual way, but only have their shoots thinned out, and these are very beautiful for decorative purposes, whether arranged on the table or allowed to hang from a wall basket.

Blights of any kind should be dealt with directly they appear; a few insects are not difficult to eradicate, whether by means of the vaporiser or by sponging; but if allowed to propagate themselves they will soon gain a firm hold and do serious harm to the plants. Liliums, such as the Bermuda lily (L. Harrisi) and the Nilgiri lily (L. neilgherrense), which are too delicate to be grown in the open air, need much care as they grow, for it seems to be the special object of the green-fly to penetrate beneath the small leaves which cover the embryo buds before these are visible, and if allowed to creep in amongst them the result will be mal-

SECOND WEEK IN AUGUST

formed and stained flowers instead of the pure white trumpets which make such an effective centre to a group of other flowers.

Tuberous begonias are now very effective in the conservatory, especially the double-flowered varieties, and these can now be grown from seed for next season, even without artificial heat. In fact, the seedlings so raised are usually stronger and more healthy than those hurried on in the winter by fire warmth, and they make better plants the following season. But it is very necessary to procure the seed from an excellent source if the result is to be really good. From a packet of the finest seed, however, it is possible to obtain dozens of beautiful begonias, many of which should produce double flowers, whilst some are sure to be single; and it is an interesting time when these seedlings open their first blossoms, for each one is different from the rest, and all are lovely. The blooms, too, increase much in size as the plant becomes larger, so that even a small flower may become valuable as it grows, if thoroughly double and of good colour. The remarkable variety in shape, habit, and foliage, as well as in tint, which is one of the charms of tuberous begonias, makes them specially interesting; some plants, with a drooping habit, are delightful for hanging baskets in a half-shady place; whilst others, with flowers held well above the foliage, will suit the more conspicuous positions on the staging of the conservatory; and the single varieties will do well in the open air, if grown in a moist rich soil, with a rather shady position. Even in a window these plants are at home; but wherever they are they require careful watering, abundance of air, and a certain amount of shade to do their best. They are not, as a rule, troubled by blights, and the tubers are so easily kept through the winter (while dormant) that these plants are within the reach of many of us. But the seed, which is extremely fine, should not be covered, and can be mixed with a small teaspoonful of silver sand and distributed evenly on the surface by means of a perforated tin (or a pepper-pot), using a small shallow box for it, which should be half-full of

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drainage, covered with small lumps of peat, and filling only half an inch of space above this with the finest possible sifted soil (a mixture of loam, peat, and leaf mould), which must be made quite flat and firm before the seed is sown. The box can then be lowered into a pan of lukewarm water (taking care that this does not flood the surface), and a covering of glass (which must not, however, quite exclude the air) should then be placed over it, adding a piece of paper to shade the seed.

The tiniest of plants will appear in ten or twelve days, and may be pricked out separately into slightly larger boxes prepared in the same way, placing them 2 inches apart. Their subsequent cultivation is a repetition of this, giving them more room and slightly richer soil at each shift, and keeping them growing as late as possible in the autumn by means of artificial warmth. The little tubers they form will start into life with the spring, and can then be potted up separately. The most valuable plants in a batch of seedlings are those which germinate the last, so that special care should be taken of the smaller seedlings.

There has been a catastrophe in the bird world of the garden. Ruby, one of the tame robins, having built her nest too near the ground, there must have been a battle royal with some cat (or possibly a rat) in which her poor little mate lost his life fighting for his family, and two of her four nestlings disappeared also. The other two were quickly picked up from the path (being unable to fly, though partly fledged) and deposited in an artificial nest of moss in a nest-box. This was then hung up, well out of harm's way, in the garden shelter, and for several days the little widowed bird fed the surviving nestlings until they were able to fly, constantly flying to the hand of her human friend for biscuit.

Yet she did not neglect to add plenty of insect food between whiles. After one or two crumbs, the hard-working little mother always went in search of animal food for her children, returning with a beakful of caterpillars, a fine worm, a spider, or some other insect, before giving them more farinaceous food. At last they retreated to the thick

SECOND WEEK IN AUGUST

laurel bush, in which Ruby always hides her progeny for several days after they leave the nest, and were industriously fed there for a week or two, until they were able to feed themselves. It is curious to watch the gradual change in the posture of very young birds. When they first leave the nest they have no idea of helping themselves, but sit quietly on the bough appointed for each by its parents, with a gaping mouth looking upwards for the food brought for them. But in a few days the young bird learns to imitate the parents in searching the ground for food, and the beak is lowered as well as the eyes. This is the time in which it is so easy to tame them, for they do not find it an easy task to supply themselves, and are delighted to fill their hungry crops with biscuit or bread, either of which is easily seen on the ground. Drawing nearer daily to the friend who sits very quietly near their retreat, they are gradually persuaded first of all to fly to a piece of cloth placed nearer and nearer to her feet. This cloth is then raised to the knee, and the young birds soon follow it, when the food is offered from the hands, which they appear not to fear at all, and will then follow their friend in all parts of the garden when in need of a little extra food, coming to the call without fear. Young birds tamed in this way are thoroughly fearless, much more so than older birds which have become partially tame, for these never quite lose their attitude of nervousness.

¹ See p. 168.



THIRD WEEK IN AUGUST

ROMNEYA COULTERI

The large white and gold flowers of this shrub (the giant bush-poppy of California) are most effective, whether in the garden or for cutting. It requires care in planting, but when once established gives no further trouble, growing to the height of about 12 feet in a congenial soil and position.

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RHOMNEYA COULTERY.

CHAPTER XXXI

THIRD WEEK IN AUGUST

VERY handsome plant is the giant poppy of California (Romneya Coulteri) with enormous blooms, each 9 inches across, in pure white, with a golden disc in the centre. Its petals are like satin, crimped and fluted, and the plant produces upwards of fifty flowers open at one time, the display extending for several weeks in July and August. But this is not an easy plant to establish, and it should have deep well-drained soil, in a sunny sheltered position, with slight protection in winter from the worst of the weather.

We obtained a young plant in a pot three years ago, in October, but it was not planted out until the following May, being sheltered in a cold glass porch for the winter, keeping it just moist, with very occasional watering. The Romneya was turned out of its pot, without any disturbance of the root, at the beginning of May, into the corner of a wellmade vinery border facing the south, where no other plants are grown; so that it has ample room, and shares the yearly mulch of cow manure which this border obtains with that part of it which is given up to the roots of the vines at its At the time of planting it was kept well watered for about a month, covering it partially, too, with a hand-light raised on two bricks over the plant until the cold east winds and late frosts of May were past. It did not blossom the first year after planting, but produced a number of blooms last season, when it grew to the height of about 5 feet; the following year it reached 9 feet, however, and is extremely vigorous, every shoot being covered with fine healthy buds,

so that it is evidently happy in its quarters, and has made itself quite at home. The only protection it obtains in winter is from a frame-light which is fixed in a sloping position over the plant in December and removed early in April. The branches of the Romneya are slightly tied in to bring them under the shelter of the glass, but those which protrude do not appear to suffer, and it is doubtful whether this slight protection might not be dispensed with unless the winter should prove exceptionally cold. But in case of a really severe season setting in suddenly, it may be well to err on the safe side, and certainly the plant thus treated

flourishes exceedingly.

The Romneya is said to grow from seed, but it is not easy to obtain plants in this way, for, although seed is produced, it does not thoroughly ripen in our climate. The ordinary way of propagating by cuttings is of no use in this case, and the best way to obtain young plants is to take root cuttings in the autumn. For this purpose one portion only of the whole root should be carefully uncovered, cutting off from it a straight piece about 1 inch in diameter, and long enough to make several root cuttings each 2 inches in length. When severing these pieces it is very necessary to make sure of the right end for insertion, as the long woody roots of this plant are much the same size for a considerable length, and the cutting must not be placed upside down. Each should be inserted separately in a 3-inch pot, or several may be placed around the edge of a 6-inch pot of light sandy soil, mixed with a little charcoal dust, and well drained, taking care to cover the hole first with a wire crook to exclude worms. The upper part of the cutting should be barely covered with sand, and they should be made quite firm in the soil, which must be fairly moist. The pots are then sunk to the rim in a bed of ashes, covered by a frame, where they will be safe from frost; and in the spring the young plants will make growth, which should be sheltered with care until the plants are quite established, when they should be gradually accustomed to the full sunshine and air in June, and can then be planted out or potted up

THIRD WEEK IN AUGUST

singly. They will be safer, however, in their pots during the following winter than if planted out in the autumn, unless they are covered with a bell-glass, raised, however, except during the coldest weather, a few inches from the soil on bricks, so as to admit air. In cold districts Romneyas are often cut to the ground in winter; this is, however, much to be avoided, for they make much finer growth when their branches come through the ordeal of our winter climate unscathed. Pruning is therefore more safely done in April, cutting away at that time such branches as have been injured by the winter cold.

A very dry season is extremely trying to our gardens, especially to the roses, which suffer much from blight in such a summer. Mulching them with any moist rich material (such as half-decayed leaves, hot-bed stuff, decayed manure, and loam) is the best remedy; laying this down to the distance of 2 feet from the stem in order to protect and feed the principal roots, which always lie at the points of the rest, and are not at all aided by piling manure over the collar of a rose, which is too often the mistaken plan of the ordinary gardener. Before mulching any plant in need of help the soil should be drawn back to the depth of about 3 inches around it, then saturating the roots thoroughly with tepid water, after which the mulch (first made quite moist) may be laid down in place of the removed soil, and the whole covered with a little sifted soil, when no more water will be needed for some few weeks, even in a severe drought. Watering without mulching too often results in a sort of hard, baked crust being formed on the surface, which effectually keeps out the heavy dews and also prevents the moisture below being raised, as it otherwise would be (i.e., if the surface soil be kept loose and open), through capillary attraction. Water spears (or pieces of bamboo 2 inches across and about 6 inches in length) are most useful contrivances to convey water to the roots of a plant, especially on a bank, where it is almost impossible to supply moisture to a shrub in any other way.

This is an excellent time in which to propagate pinks and

violas (including pansies) all of which will form roots very surely in a frame or under a bell-glass. Without the help of the moistened air which is thus afforded, the cuttings are apt to die during a time of drought before they have time to throw out roots, but in a frame (which can easily be shaded from the noonday sun with a light mat) they will do well. The lights may be kept almost close for the first few days, only giving a crack of air at the top of the frame; but after a week or two the cuttings may have a little more air, avoiding, however, any exposure to strong sunshine, which is not desirable until they have rooted.

The soil in the frame should be sandy and light, without manure, and the cuttings can be dibbled in 6 inches apart (or less in the case of pinks), keeping them fairly moist, though not too wet. If well done, they should be fit to plant in their flowering positions in the borders in October, or early in November; those which fail to make good growth by that time must be left in the frame until the following March; but all these flowers do best when planted in the autumn, except, perhaps, in very cold districts.

Pansies and violas are now throwing up fresh shoots from the centre of the plant, having completed their spring growth. These young shoots may often be pulled off with a slight "heel," and a tiny rootlet attached to it, when they

start quickly and make good plants.

It is difficult to have too many violas in the garden. For continuous bloom in grand masses of colour, few plants can vie with them, and for carpeting beds of roses, or for edging

half-shaped borders, they are very valuable.

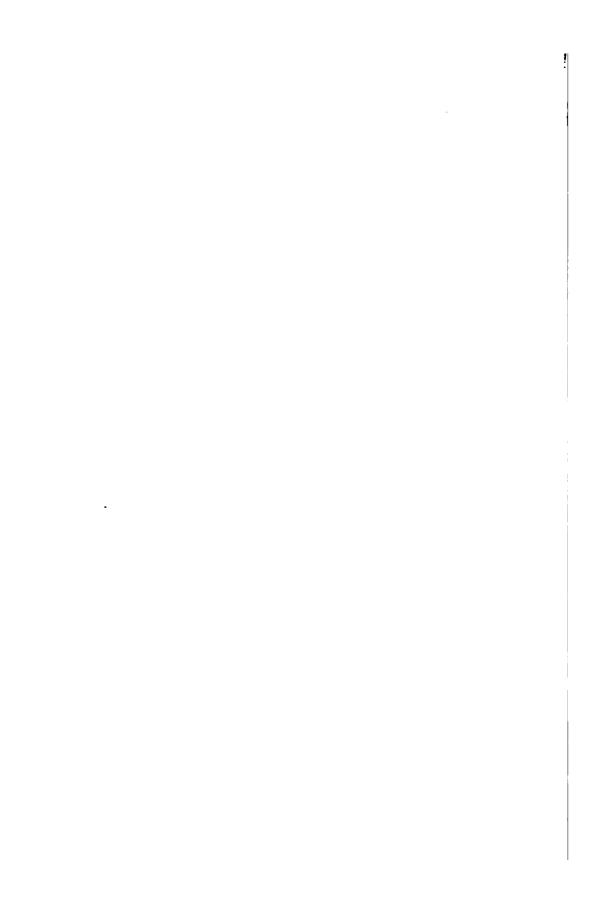
One of the most beautiful of these Scotch violas (which has a perfect form of large size in purest white, with a distinct golden eye, slightly rayed with black), is Bethea, with frilled petals; Endymion, in delicately shaded sulphuryellow, is another great beauty; and Archie Grant, with magnificent flowers in pure violet, contrasts delightfully with Bullion, in deepest gold. Blue Cloud is a delicate blossom in creamy white, edged with sky-blue; Dobbie's Blue Bedder is a particularly neat, compact plant, most desir-

THIRD WEEK IN AUGUST

able as an edging; Blue Duchess produces very large blooms in paler azure; and Crimson King is one of the best of its kind in this tint. Why we should take the trouble to grow semi-tropical bedding plants while these little gems are ready to brave the hardest winter remains a mystery. Tufted pansies cost but a small sum, blossom nine months out of the twelve, and are equally at home in large or small gardens, so that every one should grow them. But they like a light rich soil, in which there is plenty of leaf-mould and decomposed manure. The contents of a cucumber frame with some sharp gravel will suit them well as an admixture to ordinary soil, and the surface should be kept loose and open throughout the year.

We constantly pick off all fading blossoms from these plants, as seed-bearing weakens them and checks their flowering; and in the early spring, as well as in June, they are given a rich top-dressing mixed with a little soot, for one cannot expect any plant to go on producing such a mass

of blossom without these little attentions.



FOURTH WEEK IN AUGUST

A SUB-TROPICAL GARDEN

In the south of Britain and in Ireland many palms and other tropical foliage plants may be grown in the open air; in less favoured parts of our islands they require the protection of glass.







CHAPTER XXXII

FOURTH WEEK IN AUGUST

IT may not be possible in some parts of our islands to create a sub-tropical effect in our gardens, yet there are probably many districts in the south and west, as well as in Ireland, where this style of horticulture might be successfully carried out if the proper cultivation of these plants, as well as the selection of the best varieties for the purpose, were more generally understood.

The illustration of the sub-tropical garden in the grounds of Glen-Andred, Torquay, gives but a part of the fine collection of palms, dracænas, and many other tropical plants which flourish there in luxuriant beauty, growing rapidly year by year (and flowering also yearly) under the special care of their owner, who supervises all that is done by his gardeners.

The garden slopes gently to the south, facing the waters of Torbay, but is liable to suffer when the north-west wind blows; yet the broad leaves of the fan-palms are intact, and the dracænas grow, as in the case of D. indivisa, to the right of the photograph, to the height of 25 feet. Behind the tall stem of this plant may be seen the foliage of an Aralia (fatsia) japonica, which is at the present time in full bloom, the plant reaching the height of 16 feet, with fine leathery leaves of great breadth. Behind the lower part of the dracæna stems may be seen the broad foliage of Musa ensete, the plantain palm; this plant, however, is the only one in the group which requires to be sheltered in a greenhouse in winter, or otherwise its foliage would probably be reduced to shreds, if the plant itself should survive.

Just above the fans of a beautiful specimen of Chamærops

humilis, in perfect health, may be distinguished the spreading fronds of Woodwardia radicans, a North American fern, which is growing in the trunk of a dead tree fern, from which its splendid fronds droop, each being from 3 feet to 5 feet in length, and of a deep rich green.

The New Zealand flax (Phormium tenax) is the next plant in the foreground, with another musa behind it, and in the centre (but rather in the background) grows a perfect specimen of the date palm of the Canary Isles, Phœnix canariensis,

which is apparently quite at home here.

The elegant blue palm, Cocos Australis, too, is in thorough health and vigour, producing many fresh leaves yearly. This is the plant at the left central foreground, with two handsome specimens of Chamærops excelsa (the fan palm of the Riviera and Northern Africa) on the left of it. Bambusa metake, a handsome bamboo, which here grows tall and strong, may be seen as partially included in the photograph at the extreme left; the plant at the opposite point of the

picture on the right being a dracæna.

The belt of firs and other trees behind these tropical plants no doubt helps to shelter them, and beyond is the beautiful Torbay; but there is no doubt that the special care which they obtain accounts for their singular health and luxuriance in our English climate. Even the more delicate Brahæa Ræzli glauca (the blue palm of Arizona, Mexico) grows strongly in another part of the grounds, its pale blue silvery leaves being very distinct and handsome. Phænix sylvestris, 12 feet in height, with its feathery foliage, is remarkably healthy and handsome here, every leaf being intact; and Dasylirions (both juncifolium and the dwarfer gracile) are equally robust. These are rare Mexican plants of the lily order, with small white flowers and rush-like foliage, usually grown under glass.

Many of these plants were obtained from Bordighera four years ago, and each received special care in planting, in some cases the hole required for their roots being excavated to the depth of 5 feet, and filled with good loam, peat, and leaf-mould. April was the month selected for this work,

FOURTH WEEK IN AUGUST

and the plants were amply supplied with water from a hose throughout their first summer. A large quantity of water is given to their roots each year in warm, dry weather; and as a precaution to avoid injury from the high winds of autumn the leaves of some of the more delicate palms are tied together, like a folded umbrella, from October till April yearly, placing each in position from the centre, and covering the outside leaves with a mat. This is not necessary, however, in the case of Chamærops excelsa and C. humilis, the latter having proved extremely hardy. Phænix sylvestris, too, and P. canariensis do not suffer from the cold, but the effect of rough winds is disastrous to their beauty, as may often be seen on the Riviera and elsewhere.

Early in April, too, the whole collection of sub-tropical plants obtains a somewhat heavy mulch of well-decayed manure just as the new growth begins, which no doubt supplies them with plenty of nourishment throughout the summer.

With so fine a sub-tropical background, the Indian shot (Canna indica), Hedychium gardnerianum (the yellow garland flower), oleanders and pomegranates, and many another foreign plant, will harmonise well; whilst plenty of rich colouring is afforded by beds of tuberous begonias, pelargoniums, and other brilliantly tinted flowers from warmer climes than ours.

Dracænas (as well as the India-rubber tree, Ficus elasticus, and other plants) are apt to become leggy and awkward-looking after a time when grown in pots, but this can be remedied by means of stem-rooting them. To do this successfully a 5-inch pot should be sawn in half perpendicularly, so that the hole at the bottom of the pot is divided into two parts. The stem of the plant is then slit half through (in the same way that a carnation is layered) just below the foliage, and the two halves of the pot are fixed around it (resting on two stakes in the ground, or by wire and string), in such a position that the stem, just below the incision, appears through the hole at the bottom of the pot. Drainage

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of charcoal in lumps should then be placed in the pot, covering the slit in the stem (which should be kept open by inserting a small piece of broken glass into it) with a mixture of good compost and charcoal (without manure of any sort, however) until the pot is half-full. The upper half may then be filled with moss, preferably sphagnum (as this holds moisture the best), and the contents of the pot must never be allowed to become dry, whilst the roots of the plants (in the original pot) should be almost starved, to induce rootlets to be thrown out from above the slit stem into the moisture of the upper pot.

When this takes place, and the young roots appear below the pot, the stem just below it should be gradually severed, and the rooted plant can be repotted. But the growth of these rootlets can be encouraged (as soon as they are observed to have started) by removing the moss which filled the upper half of the pot, and substituting for it rich compost; and the plant should not be repotted until this soil is full of roots.

The bare stem of the dracæna (or ficus) left without its foliage can then be utilised to obtain a number of young plants. It should be laid horizontally in a hot-bed, cutting the whole length of the stem in notches, so that each piece contains an eye, half-severed from the rest of the stem, and covering these places lightly with a mixture of fine compost and charcoal; when a young plant will start from each separate incision if the whole be kept warm and moist. The best time for this work is in April, when the full power of the summer sunshine will be available for some months, and stem-rooting should always be carried out under glass, choosing a warm and sheltered corner for the operation.

FIRST WEEK IN SEPTEMBER

BRUGMANNSIA (SYN. DATURA) SUAVOLENS KNIGHTII

This tropical plant will blossom almost throughout the year if well supported, but too often suffers from lack of nourishment. The great white trumpets, which it produces in profusion, are extremely fragrant, scenting the garden to a considerable distance.





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BRUGMANNSIA SUAVOLENS KNIGHTII.

CHAPTER XXXIII

FIRST WEEK IN SEPTEMBER

THE garden parties of this time of year give a good opportunity for those who interest themselves in their flowers to obtain new "wrinkles," for horticulture is no longer in the stagnant stage, and any uncommon arrangement, if picturesque, is now more popular than the set flower beds of the latter half of the nineteenth century, in which "bedding-out plants" alone were to be seen. Pergolas, water gardens, wreaths of climbers on posts and chains, and many other picturesque arrangements give interest and individuality to the garden, and the time is now arriving when these new features can be begun, for October will soon be here, and it is well to have everything ready for planting before it begins.

Then there are the handsome specimen plants which add so much beauty to the garden, whether they are well-grown shrubs, or semi-tropical plants, or groups of pampas grass, kniphofias (red-hot pokers), and other perennial things, such as tree pæonies, &c. One of the best of the semi-tropical specimen plants is the Brugmannsia (syn. Datura) Suavolens Knightii, with enormous semi-double blossoms in creamy white, the rich tropical fragrance of which extends far round the plant towards the evening. These flowers are produced almost throughout the year, either under glass or in the open air; and the plant is a most manageable one, for it can be wintered safely in a cellar if necessary, or in any place free from frost, though in this case it will only bloom in the

summer. The daturas are taken up towards the end of September from the garden, first cutting the roots round with a small sharp spade to the size required to fit into the large pot provided for each, after which operation the roots are soaked with liquid manure, which induces them to throw out a quantity of fresh rootlets very quickly. Ten days later the plant is carefully raised from its summer quarters and potted, filling the interstices with the richest possible soil, but leaving ample room for the water supply, for daturas are exceedingly hungry and thirsty plants, quickly falling a prey to their special enemy, red spider, if kept on short commons in either particular. After potting, these plants should stand in the shade of a north wall for a week or two, or their fine foliage will droop hopelessly. They can then be placed in the conservatory, where they will continue to open their buds till the end of the year or later if well supplied with liquid manure and tepid water. After that time it is desirable to rest the plants in a cooler place (from which frost is excluded, however) for about six weeks, when they should be repotted, pruning away some of the older wood, shaking out most of their soil, and substituting a very rich compost of loam, old manure, and a little soot Increased warmth and more water will soon be needed for them, and before the plants are placed in the garden (early in June) they should again be covered with buds. A large hole should be made for each plant, and a considerable quantity of manure incorporated with the soil before turning the datura out of its pot. Every fine day in summer the roots should be soaked with water and the whole plant syringed. If red spider should appear, the foliage can be sponged (especial care being taken to reach the reverses of the leaves) with warm soap and water, to which a little powdered sulphur has been added, and the syringe must be used daily on the foliage whilst the datura is growing under glass.

Arum lilies which have spent the summer in the open ground should now be potted up, dividing the roots into single crowns, and giving each of these a pot 7 or 8 inches

FIRST WEEK IN SEPTEMBER

in diameter, with only one flat piece of crock for drainage (as these plants are semi-aquatic), and very rich soil, such as that recommended above for daturas. After potting, they should stand in the shade of a north wall, being well supplied with water; for if once the heavy, succulent leaves droop they cannot recover themselves, and the vigour of the plant is destroyed. When well established (which they should be in about ten days), the arums can be taken into the greenhouse, where, with slight forcing, they should blossom towards Christmas. Green fly, which often attacks the buds and young growths, must be destroyed directly it appears, and the plants kept growing quickly in a sunny position near the glass if early blooms are desired, giving them plenty of tepid water and liquid manure as soon as flower-buds appear, with a rich top-dressing after Christmas.

Cuttings of zonal pelargoniums (as geraniums are more correctly called) should now be made; in fact, they may be put in with advantage in August, but few of us care to sacrifice the bright colour in our gardens earlier than it is necessary to-A box about 8 inches deep, drained with cinders to the depth of 2 inches, and filled with light, sandy soil, will contain a number of cuttings, and should stand in the open air until frosts threaten, when a warm, rather dry greenhouse will suit the plants. Each cutting should be 6 inches long, and of firm wood, and after removing the lower leaves the cuttings should be allowed to lie on the greenhouse shelf for twenty-four hours, or more in wet weather, to form a callus (or hard surface) over the cut part before they are put in, making them very firm in the soil. They will need but little water, unless the weather be hot and dry; and heavy rain must not be allowed to soak them when already damp. Rotting off is their special danger, as they are very succulent; every failing leaf must be removed from them, as these quickly set up mildew, which is a deadly foe to these plants. When rooted, they can be potted up singly in January or February, using thumb pots, and shifting them into 4-inch pots in March or April, when they will make good plants

for the garden in May. Though bedding-out is gone out of fashion, geraniums are very useful to add brilliant colour to the front of a dry border, and to fill up gaps in the mixed border with their neat growth and rich colouring, as well as for winter flowering in the conservatory. Those plants specially prepared for this work should now be allowed to form flower-buds, and may have their last shift, giving them rich loam and making them very firm, after which they should be moved into a warm, sunny greenhouse, and will soon be covered with blossom.

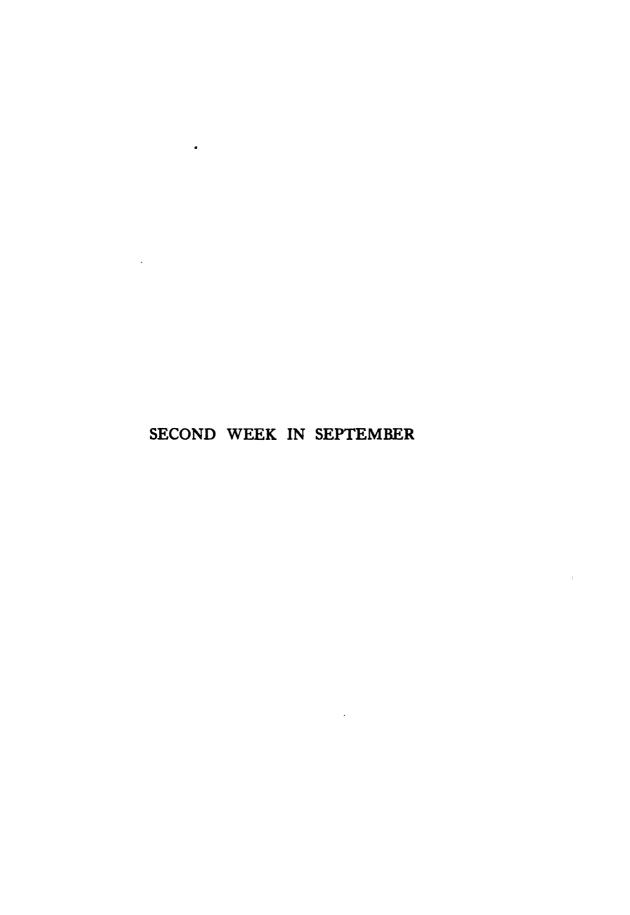
For winter flowering, the double varieties are the most useful, and there is a great variety of tints to be found amongst them: St. Cecilia, in salmon-pink, deeper in the centre; Nydia, a specially beautiful flower like a blush rose, the central buds opening bright pink, fading to white on the outer edge of the truss; Beatrice Kelway, in shades of salmon-pink; Agrippa d'Aubigné, in deep crimson; Madame Carnot, pure white; and F. V. Raspail (improved), in brilliant scarlet, are all excellent varieties of double zonal pelargoniums, which, if well cultivated for winter flowering, may be relied upon to brighten the conservatory at that time.

The garden now requires constant attention to keep it in good order. It reminds one at this time of a woman who has passed her youth, and who should, therefore, take extra pains to be fresh and tidy; for the picturesque style, which may condone a certain amount of untidiness in spring, is apt to become unsuitable and depressing in autumn. Dahlias will soon need to be dug up now and wintered in a place free from frost (such as a cellar); but before doing so, a label should be tied to the piece of stem left, for reference in planting them in March, as it is most necessary to know not only colours but also their heights at that time. We only grow the cactus dahlias, both double and single; the latter are specially useful for cutting, and the most charming table decorations can be arranged with these blossoms and the tiny white daisies, in feathery masses, of Aster ericoides (one of the Michaelmas daisies), until the frost cuts down the

FIRST WEEK IN SEPTEMBER

Everything which will not stand the cold must now be potted up or sheltered in some way. Many delicate South African bulbs (such as ixias, sparaxis, nerines) grow in a south border close under the conservatory wall on the garden terrace far better than in pots, but they are covered for the winter by panes of glass, which slant from the wall, over the roots, and perhaps the hot-water pipes (inside the wall) help them somewhat. Tigridias, camassias, ixiolirions, belladonna lilies, and various other bulbs, with many of the early irises, do well here in the same border and under the same protection. Iris stylosa, indeed, will do without any glass at all; but the exquisite blossoms which it produces throughout the winter should be cut in the bud, or they are sure to be injured by the wind and rain. Another great protection, which should be given shortly to many delicate bulbs, is a raised heap of dry ashes over their roots; this is specially desirable for nerines, Japanese liliums, and gladioli, all of which prefer to be kept dry in winter, but, at the same time, object to be taken up and placed in paper bags—an unnatural way of spending the winter, which surely cannot be desirable for any plant. In cold districts and heavier soils it may be better to raise gladioli of the summerflowering kinds, and tigridias, and plant the clumps of roots in a box of sandy soil, keeping them in a frame or a cellar for the winter; here, however (in Devonshire, with a gravel soil), they both flourish mightily in the open air, with conical piles of ashes over them from autumn till spring; but the position is sheltered, and the well-drained soil of the terrace, no doubt, is in their favour. The Bride gladiolus grows in masses from year to year all over the garden without any special protection, and probably this lovely flower is much more hardy (in a well-drained position) than it obtains credit for. We force home-grown bulbs of the Bride gladiolus in the vineries for winter blooming (as it is a flower of which one cannot have too much), and plant out the bulbs in May, so that every year they increase in the garden, blogming very strongly early in June. They should be planted at once, either in the garden or in boxes

for forcing, keeping these last cool until the end of January in a frame, and then placing them in gradually increasing warmth. They need but little water in the winter, but a plentiful supply, with liquid manure twice a week, when growing strongly.



BELLADONNA LILIES

These lilies in pale pink should be grown under a south wall on a well-drained terrace, and not disturbed until the bulbs become too crowded, as they do best when left alone for some years.







BELLADONNA LILIES.

CHAPTER XXXIV

SECOND WEEK IN SEPTEMBER

SUMMER is on the wane, and the gardener—who is nothing if not prescient—must begin to prepare for the next season's display, for Nature cannot be hurried, and must have ample time to carry out her plans. Seeds of the hardiest annuals (such as Shirley poppy, mignonette, cornflower, &c.) may now be sown to stand the winter in sheltered positions, with sweet peas, of which we can never have too many, for their beauty and fragrance are universally

acknowledged.

Another set of seeds which may now be sown with advantage are those of the half-hardy climbers, which are now so beautiful in the garden. Most of these are best treated as biennials, for they take many months to grow before they blossom; if sown in the spring they seldom do much the same season, and are too often killed by the cold (unless planted in a greenhouse) before they come to their full beauty. These are sub-tropical plants, in fact, but may yet be grown in the open air during the summer, when their graceful blossoms are conspicuous on the ironwork of a balcony or at the sides of a window-box; they may also be used to cover wire-netting in the garden, as well as in the greenhouse. Lophospermum scandens, a native of Mexico, with trumpet-shaped flowers about 21 inches long in soft pink, and vine-shaped leaves, is one of these—a very beautiful climber, which makes rapid growth during its second season if sown at the present time. The seeds (which are contained in extraordinary round pods, each forming a caricature of a Chinaman's head) must be sown in a shallow, well-drained

box of light soil, and scarcely covered with soil; they must not be over-watered, but should be covered with a pane of glass (admitting air at the corners, for all seeds need the oxygen it contains), and slightly shaded with a piece of paper, whilst standing on a greenhouse shelf. should not be a large one, for it is necessary to hold it in a tank of tepid water when moisture is needed until the water appears at the corners of the box without flooding the surface. The moisture will soon permeate the whole of the soil without disturbing the seeds on the surface, and this is, of course, much to be avoided. When the seedlings have four leaves they should be pricked out into a deeper box of slightly richer soil, and from that they may be potted up singly when they need it. These autumn-sown plants will start away well in the spring, and make a far better show than any which are sown at that time; they must, however, be kept under glass and free from frost during the winter, when they will not require much water. If potted on in February with rich soil, each plant will be ready for use in May, having already started its long growths. The same cultivation will suit the maurandyas, which also come from Mexico; the purple variety (M. Barclayana) is rather hardier than the white one (M. alba), which is more fitted for conservatory work than the open air; whilst the snapdragonshaped mauve flowers of the first-named variety can be trusted to survive any but a very severe winter in a Devonshire garden if planted against a sunny wall in a well-drained position. But for this purpose it is necessary to put in autumn-sown plants in the spring, which thus escape the winter until they have attained their full strength, and in cold districts it will be safer to hang a mat in front of these plants from December until March if in the open air; or the roots may be potted up and taken into the greenhouse for that time, cutting their growths back gradually, for the sudden loss of all their foliage at one time sometimes kills them.

Cobæa scandens, too, the rapid climber with deep purple bells which open in a pale green tint, should now be sown,

SECOND WEEK IN SEPTEMBER

placing each seed separately in a small pot of light soil in the greenhouse, and potting on the plants as they require more room. All these climbers will need staking before their growths become entangled in other plants, for if this takes place it becomes difficult to disentangle them without injury; and they should have enough water to keep them from drooping in winter, with a greenhouse temperature, increasing both the warmth and the moisture in the early spring, when they will require more room, and richer soil too.

Eccremocarpus scaber, the Chilian glory-flower, with fire-coloured blossoms, is one of the Bignonia family, which is hardy enough to sow itself and wreathe the pergola and the walls of the house in my garden without any attention being given to it, but probably in colder districts than that of South Devon it would be better treated in the same way as the rest of the South American and Mexican climbers above mentioned. It grows readily from seed at this time.

One of the most beautiful of the autumnal bulbs in the garden is the belladonna lily (Amaryllis belladonna), but it is not a plant that can be grown anywhere, for it is a native of the West Indies. The bulbs should be planted 3 inches below the surface, close under a sunny south wall, in a well-drained, light soil, and when once put in they must be left severely alone, for any disturbance may be fatal to them until they have had time to settle themselves, a year or more sometimes elapsing before they make their appearance. The foliage of these plants appears before the flowers, ripening away during the summer, when all hope of blossom seems to be over; but in August or September strong crimson-brown leafless stems will push up, each crowned with eight or more bulbs in delicate pink, most beautiful and distinct in appearance.

After planting these bulbs it is desirable to cover them with a piece of glass, placed in a slanting direction from the wall to the ground, so as to protect them from the heavy rain, for it is the moisture of our winter climate (as well as the cold) which destroys many tropical bulbs in the garden.

The flowers here represented are growing close to the south wall of the conservatory, on a gravel terrace; they are protected each year from November till March by slanting glass over their bulbs, and a mulch of old hot-bed material is given when the glass is removed in spring. In this way they do well, three bulbs put in two years ago having produced this season eight blossoms each, although they did not appear at all until the spring of this year, no foliage even being produced during the first year after planting. Next year they will probably produce offsets, which may be allowed to grow into a fine clump of bulbs until they become too crowded, when the outer bulbs may be carefully removed in June, using them to start another group. They are, however, usually supplied by the horticulturists at this time of year, and may be safely planted in October, with the precautions mentioned above.

We have just set up a pair of toads in the glasshouses; they are most useful in hunting and destroying the woodlice, slugs, &c., which would otherwise injure the plants, but they are apt to wander at night if the vinery door is left open, as it must be during the time when the vines are being ripened. To prevent this I have had a board, about 8 inches high, fixed in a socket just inside the door, taking a hint from the cottagers, who keep their babies from roaming in the same way. It is easy to step over the board, and this plan keeps the precious toads from wandering. They much enjoy an occasional bath from a finely-rosed watering-pot, and soon become quite tame.

¹ Sec p. 319.

THIRD WEEK IN SEPTEMBER

THE LOGANBERRY

This fine and valuable fruit is the result of a cross between an American blackberry and a red raspberry; it was first produced in America by Mr. Logan, after whom it is named.

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THE LOGANBERRY.

CHAPTER XXXV

THIRD WEEK IN SEPTEMBER

7ASPS are likely to be very troublesome now in the late vinery. The old-fashioned plan of tying up each bunch of grapes separately was not only difficult to manage without spoiling the bloom of the fruit, but often resulted in mildew spreading from an injured berry; and the more modern arrangement by which gauze was stretched over the windows not only failed to guard the door, but also interfered with the necessary ventilation. Now we hang up small pieces of sponge dipped in a strong solution of cyanide of potassium (each sponge depending from a string, about I foot below the grapes), then closing the ventilators, except one at the top of the vinery. Before five minutes have passed every wasp in the place has found out that he has immediate business elsewhere, and departs in a hurry from the one exit, after which the other ventilators can be again opened. But cyanide of potassium is a deadly poison and must be carefully handled, taking care not to leave the solution in the way of children, dogs, or cats, for one sip might be fatal; and if this plan should be tried in order to drive wasps from preserves, &c., on the table, great care must be exercised that the cyanide does not drip into any eatable, and it is safer to place a sponge in a small basin of solution than to hang it up. Wasps'nests can be destroyed without difficulty by means of pushing a piece of wadding soaked in a strong solution of cyanide into the entrance of the nest with the end of a stick, and this should be done as late in the evening as possible, as wasps do not come home at night so early as do bees.

Autumnal fruiting raspberries are now very plentiful. Of these the variety October Red is one of the best. Belle de Fontenay, too, and October Yellow are very useful up to November. By judicious planting and selection of the best varieties, it is not difficult to secure a succession of the fruits of various members of the rubus family from the end of June until frosts set in; yet how seldom are our gardens thus provided! The white Magnum Bonum raspberry is one of the earliest to ripen; Superlative, the finest of the crimson varieties, soon following it; and Semper Fidelis (an old variety which ripens later than the rest) will carry on the supply when the others are over, if the canes and new growths are cut completely down in November, for they bear late fruit on the shoots made during the spring.

The fine berries of the loganberry, too, are available from the end of June for about six weeks, and this new fruit (a hybrid between an American blackberry and a red raspberry should be far better known than it is. The berries are large and mulberry-like in colour, and the plant is extremely vigorous, producing a far larger crop than the raspberry if properly cultivated. It has a luscious yet rather acid flavour, and is especially useful for tarts and

preserves, also making a handsome dessert fruit.

Then with August the delicious fruit of the Japanese wineberry (Rubus Phœnicolasius) comes in, the season extending for four or five weeks; and this is a plant which is so decorative in itself that it may well be grown for its The long canes it throws handsome appearance alone. up in the summer are covered with a deep crimson tomentum, and the fine foliage is silver lined, whilst the innumerable sprays of fruit (produced at the axils of the leaves of last year) are first coral colour, then turning to a clear cornelian tint. Each berry is the size of a rather small raspberry, and is without core; the flavour is most refreshing, sub-acid, and different from that of any other fruit; and the plant is quite hardy, athough it should not be planted in a position exposed to the east winds of spring, as it starts early into growth.

THIRD WEEK IN SEPTEMBER

These new rubi (which are propagated by layering the new growths in the autumn) should be put in during October or February, using young or, in the case of the wineberry, seedling plants; many of these appear in our borders, the seed being dropped no doubt by the birds, who highly appreciate these berries, so much so that it is often desirable to net them.

Many gardeners fail to understand that the whole value of the crop in the case of any species of rubus depends upon the strength and extent of the surface roots, which spread themselves a few inches below the soil horizontally; and this fact must be borne in mind from the first, for the roots of a raspberry dropped perpendicularly into a hole made with a dibble will never do much, whilst those which are carefully spread out flatly around the cane, about 6 inches below the surface of the soil, will make an excellent start, and soon form a strong network of surface roots. The soil should be well trenched and manured before the plants are put in, and the spaces between the rows should be from 5 to 6 feet, each plant being placed about the same distance (in the case of the loganberries and wineberries) from the next in the row; whilst raspberries, which are not so vigorous, can be placed 3 feet apart, with an alley of 6 feet between each row.

The first year after planting raspberries it is desirable to cut down the canes in February to within I foot of the ground, in order to induce the formation of strong young growths. These are tied together in arches the following autumn (all expensive arrangements of stakes and wires being thus avoided), and will produce fruit the next season after that time, for most of the rubi need to ripen their summer growths in the sunshine before they come into bearing. After the second year the cultivation consists in cutting away the old wood as soon as the crop is over, so as to give the whole of the sap to the new growths, which (in the case of raspberries) may be thinned, removing the smaller and later shoots until six of the strongest are left, so as to allow three canes to be tied over to meet another set

of three from the alternate plants in convenient arches in November. No spade must ever be used between the plants of any kind of rubus, shallow hoeing and hand weeding only being allowed, for any injury to the surface roots will result in a sucker which will tend to destroy the strength of the fruiting plants. Too many plantations of raspberries are thus made useless, for it is most difficult to persuade the ordinary gardener (who judges only by his eye) that the soil is one mass of rootlets, to which the "good digging" which he considers desirable for every

portion of the garden is absolute destruction.

Another point is this—that the annual mulch which all the various rubi require must be laid down in spring, either in March or April, at the time when growth begins and the rootlets awake from their winter sleep, these needing ample sustenance for their summer growths and to swell their fruit. Manure laid down in autumn is almost useless for these purposes (having been long ago washed far out of reach before the time comes in which it is most required), and the mulch should be spread between the rows of plants, not piled up at their collars, where manure is not needed, for they feed mostly at the terminal points of the younger rootlets, these naturally spreading out widely. Loganberries are propagated by layering the ends of the new growths in the autumn, when a young plant will start in spring from each covered "eye"; wineberries, too, form young plants from the pegged down points of the new growths, as well as from seed, but raspberries are increased by suckers only.

The latest of the rubus family to ripen is the strawberry-raspberry (Rubus sorbifolius), which continues to flower and to produce its fruit to the end of October. There has been a good deal of misconception about this plant, probably on account of its misleading name, for it has nothing whatever to do with the strawberry, and is a species of rubus (the raspberry family) from Japan and the Himalayas, which was introduced into our gardens by Messrs. Kelway, of Langport, a few years ago. It is a

THIRD WEEK IN SEPTEMBER

pretty plant; the fruits are brilliant scarlet, the flowers as large as those of a fine strawberry, and the foliage light and graceful, not exceeding 2 feet in height. But there is not much flavour in the fruit, though it is worth growing as a decorative plant. It spreads rapidly by underground stems, and is very suitable for a half-wild corner with plenty of sunshine and moisture.

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FOURTH WEEK IN SEPTEMBER

BOUVARDIAS

These dainty little shrubs, with brilliant blossoms, are most decorative in the conservatory in the autumn.





Bouvardias.

CHAPTER XXXVI

FOURTH WEEK IN SEPTEMBER

THE garden now glows with many autumnal tints, the cactus dahlias (both double and single varieties) being specially beautiful when grouped with masses of asters (Michaelmas daisies) in white and cool mauve, which set off the ruby petals of the dahlias to perfection. Another handsome plant is the low shrub Bupleurum fruticosum, now covered with its terminal umbels of tiny blossoms in a singular "old-gold" shade of yellow. These sprays, borne on long stalks, are wonderfully effective when grouped in a vase with the rich colours of such dahlias as Matchless (maroon), Mrs. Holford—a most desirable little double cactus dahlia with brilliant carmine-scarlet flowers held well above the foliage on long stalks—and various starry blossoms of single dahlias in rich salmon-red. These glowing tints, with a few stalks of bupleurum, have almost the effect of jewels in an old-gold setting, especially under artificial light. Sprays from the abundant growth of such roses as Rêve d'Or or Madame Falcot, which are now produced in deep crimsonbrown, may be added, but no decided green shades of foliage should be used.

The effect of colours on the nerves, the brain, and consequently on the health, is an interesting subject, which has only lately received the attention of the scientists. Red tints are said to be good for melancholia, and mauve for nervous patients, so that perhaps the glowing tints of autumn (with its wealth of red flowers and carmine foliage) are intended to cheer us as we see the summer wane, and we shall do well to make the most of them. In spring

we have many delicate tints in white, blue, and yellow; but it seems to need the warmth of summer to produce the wonderfully beautiful shades of the autumn—apricot, metallic purple, creamy white, carmine, and crimson being often represented on one leaf alone in the inimitable painting of Nature.

When all the brilliancy of the garden is over, we shall still have the rich colours of the chrysanthemums to which to look forward. These plants are getting tall, and will now need care on windy nights, for their growths are very brittle, and a sudden storm may do irreparable damage to them. Perhaps the best plan to prevent this is to tie the shoots to extended wire in a sheltered position in the garden; but where this is not feasible, it is better to place the pots on their sides on the lawn (taking care that they are not liable to roll in a strong wind) whilst the gale lasts, but they must not be left long in a recumbent position. They should not be taken into a heated conservatory until the buds show colour, and it sometimes becomes a problem how they are to be kept safe until that time. Plenty of nourishment will now be needed for the swelling buds; yet there is a danger in overdoing the feeding, and small, weak doses of artificial fertilisers given on a wet soil are far preferable to strong ones. Many amateurs seriously injure their plants by giving chemical foods too often and in too strong doses, for the tendency to over-feed chrysanthemums is tempting to the novice, who hopes in this way to secure enormous blooms, but may destroy the plant.

At this time of year the conservatory is apt to look more colourless than usual. The tuberous begonias are almost over, and will soon go to rest; achimenes and gloxinias are mostly dormant, and the bright flowers of the libonias, poinsettias, and chrysanthemums, which will give a wealth of colour in a few weeks, are yet unopened.

Asclepias curassavica, with its glowing little blooms in crimson and gold, is very useful just now (for it blooms late if not much forced in the spring), and it is an easy plant to grow in any greenhouse from which frost is excluded.

FOURTH WEEK IN SEPTEMBER

It is a dwarf shrub from the West Indies, which needs to be pruned back in the early spring and repotted as soon as new shoots appear, shaking away about half the old soil, and giving it a rich, light compost of peat, loam, and leaf-mould, with soot and a little Clay's fertiliser, or old hot-bed material free from insects. Its stems, when cut, exude a milky sap, and this should be checked by powdered charcoal, or the plant is weakened. After repotting, a warm, moist place will suit the asclepias, with plenty of sunshine in summer; but the plant does not do so well in the open air at that time as under glass, and therefore should be kept in the greenhouse throughout the year. Asclepias tuberosa, a somewhat similar plant, may be grown in the border, and is now in blossom. Although classed as a hardy plant, it should receive some shelter before wintry weather arrives in all but the most sheltered localities; a conical pile of ashes around it from November till March, or a bell-glass covered with a mat in a severe frost, will be sufficient. The Syrian asclepias has pale mauve flowers and is extremely fragrant; it is said that the young shoots of this flower are edible, and taste like asparagus when cooked, but one would be sorry to be reduced to eating them.

Poinsettias, gesneras, tydæas, and isolomas must now have warmth at night, or they will fail to bloom; and the same may be said of bouvardias, Sericographis gheisbrightii, Hibiscus sinensis, and callas (arums) if they are required to flower at Christmas.

A dainty little winter flowering shrub is the bouvardia, which, coming as it does from South America, is rather tender, requiring a minimum temperature of 50° in winter, with plenty of moisture in the atmosphere during its growing stages, and constant syringing, for it soon becomes a prey to blights without this help.

Just at this time of year, when bright blossoms are not too common, it is valuable in the conservatory, and also when cut; and there are varieties in pure white, coralred with a white tube (B. Bocki), and intense scarlet (B. Hogarth), as well as those with double flowers, Alfred

Neuner (white), and President Garfield (pink), all of which are good.

The larger-flowered bouvardias (Jasminoides longiflora and Humbolti corymbiflora) are not so easy to grow as the rest,

but are also very beautiful when well managed.

Bouvardias are easily propagated by root cuttings, and this method of propagation is preferable to that of ordinary cuttings or slips of the new growth in spring, as the young plants are quite free from scale or other blight which may have attacked the parent plant. After flowering, bouvardias should be kept rather cool and drier than usual for a few weeks, after which they can be cut back, leaving only two or three eyes of the new wood at each point. They must then be placed in moist warmth to form new growths, but will not require much water at the root until this appears, when the plants can be repotted, shaking away all the old soil, and pruning the roots by cutting away some of the older and more woody parts of them. These woody roots, when cut into pieces an inch or two in length, form root cuttings, and can be induced to throw up shoots by planting them 2 inches apart (their tips just showing above the soil) in a shallow box or pan of light compost of peat, leaf-mould, and sandy loam in equal quantities, with a liberal dusting of charcoal. The box should then be plunged to the rim in a hot-bed, keeping it moist, and covering it partly with glass, though some air must always be admitted. The little plants grow quickly, and can be potted on several times during the summer, when they will blossom towards the autumn. points of their growths must be pinched off a week before each shift, to make them bushy; and they should spend the early autumn, from June onwards, in a cool frame, being thoroughly syringed daily, as well as supplied with water. Each time they are potted on they may receive a slight addition to the richness of their soil, old hot-bed material (in a dry state, free from insects) and soot in small quantities being suitable for this purpose. At the end of September they should be taken into a warm greenhouse (still syringing them constantly), where they should not stand directly over the hot-

FOURTH WEEK IN SEPTEMBER

water pipes, unless a board covered with moist ashes is placed on the stage to receive them. Many plants do much better with some such arrangement than when subject to dry air from below them (gloxinias, tydæas, gesneras, heaths, ferns, azaleas, and rhododendrons being amongst these), and it is a simple precaution, which is easily adopted. As soon as the blossoms begin to open, syringing must be discontinued, and if green fly should appear on the buds it may be necessary to vaporise the greenhouse with a lethorion cone or the XL-ALL vaporiser.

Montbretias are still brilliant in the garden and most useful for cutting. M. Pottsi is one of the earliest to blossom, but the finer flowers of M. Germanica (a valuable hybrid variety) do not open until the end of August, when their fiery red blooms on slender stalks are most brilliant. These plants produce a mass of spreading roots around each corm, and consequently soon become too crowded to do well; they should be raised, divided, and replanted in fresh soil in March every alternate or (at the latest) every third year, as otherwise they do not flower satisfactorily. The newer Montbretias (of which M. Prometheus is one of the best) have still larger flowers, and are very effective in the autumnal garden.

The glasshouses should now be thoroughly turned out, and where, in an empty greenhouse, no climbers are grown every insect can be annihilated by burning a little powdered sulphur in the place; but it must be remembered that all foliage is destroyed by sulphur, and even vines in their autumnal foliage should not be subject to it. A thorough syringing with hot carbolic soft soap and water, to which an ounce of paraffin for each gallon may be added, is a good cleansing wash for the interior of a greenhouse; but it should be mixed with care, first beating up the paraffin in twice its bulk of hot milk, then adding it to the soap, and pouring a little boiling water at a time on the mixture until all is dissolved. The temperature of the wash when used should not exceed 130°, and in the case of tender foliage, ferns, etc., 120° will be safer, omitting the paraffin, which is

not by any means a safe insecticide unless used with care. Insects of all kinds are destroyed by it, however, and in an empty house a stronger dose may be used to cleanse the woodwork thoroughly, syringing it strongly into all crevices. Back walls should be whitewashed with hot lime and water at the same time, and it will be well to finish by removing the upper soil from all the borders of the house, then sprinkling lime over the surface before top-dressing the whole with a little fresh material. So much is the health of our plants increased by cleanliness and the absence of blights that it is quite worth while to give all glasshouses an autumnal as well as a spring cleaning. In fact, in the case of vines this can only be done thoroughly after the grapes are cut. We have adopted the plan of turning out the vine rods into the open air for the winter with great success; the long pane of glass just above each rod is taken out and framed in wood, when it is easy to remove or replace it, keeping it in position by two small wooden buttons, one on either side. of the cold is to give the vines a perfect rest, and, at the same time, to destroy all insects. When taken in at the end of January (or a little later) they start with more vigour and are thoroughly clean, so that in various ways the plan is a desirable one, for it is difficult to give vines a thorough rest where the temperature must be kept up for delicate plants in winter.

FIRST WEEK IN OCTOBER

LAURESTINUS AS A POT PLANT

Young plants of this winter-flowering shrub are now covered with crimson buds, and are far preferable for many purposes than shrubs which produce neither flowers nor berries. .



LAURESTINUS AS A POT-PLANT.

CHAPTER XXXVII

FIRST WEEK IN OCTOBER

THE summer is waning, and with it the gay blossoms in our window-boxes must go; but what shall we have to take their place?

Not the funereal little yews and stiff little conifers which are supplied by the thousand for this purpose; surely even a bare box is preferable to these, which inevitably suggest the departure of warmth and gladness, and are appropriate only in memory of the dear departed flowers. Nor will the ubiquitous but uninteresting euonymus be desirable. There are, however, many winter-flowering plants which may be used in their place, as well as those with cheerful berries, brilliant in colour; and although there may come a time in the middle of the winter when the buds will be dormant, waiting for sunshine and warmth before unfolding their petals, yet they will remind us that winter is, after all, but of short duration, and that blossoms are at least on their way to cheer us.

The slight protection afforded by the embrasure of the window is usually quite enough for the crimson buds of the laurestinus, and neat little three-year-old plants of this pretty shrub will now be showing promise of blossom at every point. There is no difficulty in keeping up a supply of home-grown specimens if cuttings or slips are inserted in light soil under the protection of a cold frame at this time of year. They should be potted up the following October, and shifted on as they require more room, but it is a mistake to give them very large pots, as they blossom best when rather tight in their pots; moreover, they are more manage-

able in every way in small pots, and when they are about five years old they should be discarded for smaller specimens, although they are then very useful in tubs in a porch or verandah, on the leads of a town house, in balconies, or in

the garden.

Viburnum tinus, though often confused with the laurei tribe, belongs in reality to the honeysuckle order—caprifoliaceæ. There are several varieties, some of which blossom earlier than the rest. Laurestinus lucidum is one of the finest, with broad oval leaves and larger flowers than the type; but it blooms later than some others, and for autumn blooming the commoner variety may be preferred, a counsel of perfection being to grow both kinds, using the autumnal blooming plants for the present season, and changing them after they have flowered for those which blossom in the early spring. With them may well be associated the bright coral berries of the Aucuba japonica, and this is a perfectly hardy plant, which will exist even in the heart of London (if its foliage be kept fairly clean by syringing it often), so that it might well take the place of the dismal little cypresses too often seen in town window-boxes in winter, its handsome spotted leaves and large red berries being vastly superior to them. It can be cultivated from slips in exactly the same way as the laurestinus, but the young plants do not blossom until they are three years old, and they should then stand close to a male aucuba (for this shrub is diœcious, i.e., it produces its flowers of either sex on differing plants), or the berries will not be produced. The male aucuba is not so handsome as the female plant, its leaves are narrower, and lack the spots of the berry-bearing aucuba; but the two should always be planted near together if berries are to be produced, and it is easy to lift the pot plants of the spotted aucuba out of the window-boxes in March (as soon as blooms are apparent), placing them within a yard or so of the male shrub, when the wind will convey the necessary pollen to their stamens. The berries, which are green during the autumn, turn a brilliant carmine after Christmas, and are then most decorative; fortunately birds do not touch them, and therefore

FIRST WEEK IN OCTOBER

they last throughout the spring in beauty, only dropping off when the flowers begin to open.

But the best of all shrubs for a winter window-box is Choisya ternata, the Mexican orange, which is quite as hardy as the laurestinus, and may be trusted to do well unless exposed to cutting winds in January or February, therefore a south or south-west exposure is desirable for it. Few plants are so floriferous, for it produces large heads of bloom at every point, some of which open in the early autumn until the cold of winter puts them to sleep, when they will wait for weeks in the same dormant state, expanding their fragrant petals as soon as the warm sunshine of spring awakes them. The foliage of the choisya is handsome and distinct, with shining leaves in bright green, and the whole plant has an aromatic scent. Coming from Mexico, as it does, it is wonderful that it is as hardy as it has proved, but the foliage is of great substance, and the buds are, as we have said, clever at accommodating themselves to a colder climate. This plant can be propagated by cuttings, or, still better, by layering the shoots which are naturally near the ground into pots of good loam, sand, and leaf-mould sunk in the soil below the shrub in the early spring. The joint which is the most convenient for the purpose should be slit like that of a carnation, and the cut part pegged firmly into the pot, a broken one with a chip out of the rim being the best for layering. If the soil in these pots be kept moist throughout the summer the pot will be full of roots in October, when the young plant may be detached from the parent and repotted, placing it upright and giving it good drainage and soil. It should not be exposed to the cold of the open air during its first winter, but can be sheltered in a frame or a greenhouse, potting it on the following spring as it requires more room.

Veronicas, with handsome bottle-brush flowers in various colours, are excellent plants for a window-box in the south and west of England and in Ireland, but some of them are scarcely hardy enough for use in the north, except in a

sheltered position with a sunny aspect. V. Traversi is the hardiest of them, and may be grown anywhere, but it blossoms in August and September, so that it is scarcely available for winter flowering; and perhaps the blue blossoms of V. decussata (a neat dwarf variety with handsome shining foliage) are the best for a window-box, especially as blue is not too common a colour in winter flowers. V. speciosa, with longer bottle-brushes in the same tint, and the fine pink variety, V. gauntletti, also V. imperialis, a handsome veronica with petunia-purple flowers, are not so hardy as V. decussata, but will do well in a sheltered southwest window in the warmer parts of our islands. All can be well grown in pots, and they are excellent plants for a cool greenhouse or a porch in winter, standing well in the open air, except in the severest of our winter weather.

Then there are the barberries—most decorative in winter and in the early spring—with berries of brilliant scarlet (B. Thunbergi) and richly-tinted leaves; B. Darwini is an evergreen plant, which is covered with brilliant fire-coloured blossoms in April, followed by purple berries; and B. (mahonia) aquifolia is the best of all, with elegant shining leaves splashed in winter with crimson, and pale yellow

flowers in the early spring.

All the barberries can be grown from berries, and most of them from cuttings, sheltered under a cold frame during their first winter in the same way as laurestinus. Berberis aquifolia and some others throw up suckers around an old

plant in the shrubbery, which can be potted up now.

The pots containing these shrubs should be covered with light soil to protect the roots from frost, and bulbs can be planted between the pots. Daffodils of the earlier flowering varieties make an excellent addition to a box of Berberis aquifolia; double pink tulips (Salvator Rosa) can be chosen to fill a box of laurestinus or choisya, and many another spring bulb (such as the crocus, snowdrop, chionodoxa, &c.) will make a neat edging to the rest.

Even in a window with a northerly aspect we may have flowers as well as ferns, for primroses, polyanthus, and

FIRST WEEK IN OCTOBER

auriculas will blossom in a shady place, as well as hyacinths,

snowdrops, crocus, and tulip bulbs if well prepared.

The best ferns for such a window are the Hart's-tongue (Scolopendrium vulgare), the Common Polypody (Polypodium), and the beautiful little "French" fern of Covent Garden (Asplenium adiantum nigrum), which, however, is to be found in all Devonshire lanes, its shining fronds and black stems making it conspicuous in winter, for it is ever-

green, as well as the two other ferns above-named.

Dwarf plants of various chrysanthemums, late plants of the Victoria asters (which can be raised from the border when thoroughly moist just as their buds open), neat young plants of the autumn-flowering wallflowers, and of antirrhinums of the dwarf varieties can all be pressed into the service of the window-box at this time of year, substituting the shrubs in pots a few weeks later when the blossoms of the rest have faded. In this way we may contrive to enjoy flowers at our windows during the greater part of the winter.

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SECOND	WEEK	IN C	ОСТОВЕ	R	4

PRUNUS SINENSIS

This dwarf shrub is hardy, and is not only covered with little rosettes of white blossom in the spring, but supplies the garden with rich and varied tints in the autumn, when its foliage turns to carmine, purple, and bronze before it falls. It is also valuable as a pot-plant, being amenable to very early forcing with but slight warmth.

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SAIL SAIL

PRUNUS SINENSIS.

CHAPTER XXXVIII

SECOND WEEK IN OCTOBER

THE garden is still glowing with the gorgeous tints of autumn. In planting climbers and shrubs we should not forget this evening-time of the year, when Nature seems to put on her gayest tints before retiring for the sleep of winter. Ampelopsis (both of the older variety, A. quinquefolia and A. veitchii) should be freely planted, not only to cover the house, but also to drape lower walls, and even to ramble over rough places and the stumps of trees; both are self-clinging, needing no nails after they once begin to ascend, and nothing can excel their rich tints at this time of year. Even in a city the gay garlands of these plants are now attractive, for they will live and thrive where nothing else can do so.

In the shrubberies the same bright carmine gleams out amongst the green from the elegant feathery foliage of the sumach (Rhus glabla laciniata), a small tree, which should be in every garden, with the commoner stagshorn sumach (R. typhina), too, in preference to many a dull evergreen; then the newer introduction from the East, Parrotia persica, flames with rich colouring at this time of year. This, too, is a small tree, and although it comes from tropical Asia it has proved quite hardy here, notwithstanding that it gave us many a qualm during the first spring after planting, as the foliage gave no sign of appearing until the end of May. Probably this is the secret of its hardiness, for in this way it escapes the bitter winds of spring, and, being deciduous, it is thoroughly dormant in winter.

Then there are many of the beautiful American maples,

which are very decorative, especially the red maple (Acer rubrum) and the sugar maple (A. saccharinum); the Japanese varieties, too, are finely tinted in autumn, but these are not so hardy as those from America. In a sheltered position, however, some of them are lovely, especially such varieties as A. palmatum roseo-marginatum, the foliage of which is edged with pink; A. septemlobum tricolor, in red, green, and creamy white; and A. dissectum ornatum, with deep crimson and purple foliage.

Amelanchier Canadensis sanguinea is the name of a North American shrub which is extremely brilliant in the autumn, and also produces white flowers in April, followed by the purple-crimson fruits known in Canada as Juneberries or grape-pears. A most desirable plant, and quite

hardy.

One of the finest of berried shrubs in the autumn is Cotoneaster frigida, which sometimes attains the height of 12 feet, and produces great clusters of white flowers in the summer, followed by brilliant scarlet berries. Cotoneaster microphylla, the more common creeping shrub of our gardens, is most useful, for it can be trained to cover a high wall, or will hang low over a dry bank or wall, draping it with myriads of tiny white flowers in summer and crimson berries in winter. It may also be planted under trees where nothing else will thrive, and will form a carpet there, rooting itself into the soil; in fact, this plant makes itself at home wherever it is placed, and always looks cheerful.

A most beautiful shrub is Prunus sinensis fl. pl., which is not only covered with snowy rosettes of bloom in May, but dons the loveliest shades of purple, crimson, and apricot before its foliage drops for the winter. A still lower shrub is Spiræa Thunbergi, also a mass of small white flowers in spring, and a glowing bouquet of carmine-crimson in the autumn. This plant looks specially well in a moist corner of the rock border, where its long sprays of brilliant foliage

are well displayed.

Berberis stenophylla, which is just now covered with scarlet berries, has also rich autumn tints, a beautiful shrub

SECOND WEEK IN OCTOBER

indeed at this time of year; and Berberis Darwini becomes a brilliant mass of fire-coloured blossom in early spring, followed by myriads of purple berries. But all the barberries are highly appreciated by the birds of the garden, and this variety seems specially to tempt them, for the bush is full of Two of the best berrybirds as soon as the berries are ripe. bearing plants for winter are Aucuba japonica and Skimmia fortunei, as the large coral-red berries they produce are left untouched by the birds, and therefore last a long time; although in the case of the aucuba they are slow in taking on their brilliant colouring. These two shrubs are excellent town plants, and might well be substituted for the Japanese euonymus in city gardens. In either case, however, it is necessary to plant a specimen of each sex, as these shrubs are diœceous, i.e., produce their male and female blossoms on distinct plants.

The best season for planting shrubs of many kinds is now at hand, and it will be well to select suitable positions for

those to be put in.

The best soil of all in which to plant shrubs is turfy loam, i.e., turfs about 3 inches thick cut from an old pasture six months previously, and stacked for that time in a dry shed, until all the roots of the grass are dead, then chopped up with a spade, leaving all the fibre in the soil. But where this good stuff cannot be obtained, rich soil from the kitchen garden without fresh manure will make a good substitute, and if this should be of a heavy type it will be well to mix some leaf-mould with it and any burnt vegetable material which can be procured, with sand, charcoal, and a little soot, this not exceeding one-twentieth of the whole.

Then the roots of all shrubs which have been sent from a distance should be soaked for half an hour in lukewarm water before they are planted; a considerable hole (about 2 feet each way) should be taken out for each, and partly filled with this fresh compost; the roots must be laid out horizontally on this in their natural positions (not dropped perpendicularly into a hole) and covered with fine, pure soil, treading them in firmly. The position of the collar of

the plant (i.e., the point where roots and stem meet) should be duly noted in placing it in position, for if the collar be either deeply covered or exposed to the air the shrub will not thrive; 2 inches below the surface is the right position for it. A stake must then be put in and the plant made fast to it (as otherwise the action of the winter storms will injure it), and a second treading, afterwards making the surface even, and very slightly raised, will be desirable to finish the business.

Newly planted shrubs and trees should not be forgotten during the following summer, for they are apt to suffer severely during a drought, having had many of their roots cut off before planting. A large quantity of tepid water given to a newly planted shrub at one time will do more good than a smaller quantity given oftener, as it will be necessary to reach the lower soil where the roots lie, which cannot be done except by a thorough soaking of the soil.

THIRD WEEK IN OCTOBER

TUBEROSES

In the autumn these fragrant flowers are valuable in the conservatory, and can be obtained for the greater part of the year by growing early and late varieties.







Tuberoses.

CHAPTER XXXIX

THIRD WEEK IN OCTOBER

Which our forefathers did not possess, and not the least of these is the modern chrysanthemum, which provides us throughout the autumn with such a feast of gorgeous colour, filling the gap between summer and winter with flowers for all, needing no artificial warmth, and (in the case of the early-flowering varieties) giving but little trouble, for these will grow and blossom in an ordinary border from year to year, only requiring to be mulched with rich soil in March, and divided or propagated from cuttings from time to time.

Early-flowering chrysanthemums are far more really decorative than the larger blossoms of the later varieties, and these flowers have now attained so perfect a shape and size that there are few more delightful flowers, both for our rooms and our gardens, at this time. Not many years ago the best white variety was Madame Desgranges, a free-flowering plant, but with blossoms of very imperfect shape, these being about half the size of those of Parisiana, which is now, perhaps, the most beautiful of the early white chrysanthemums, for it is of exquisite form, and the creamy tint of the central florets before they expand to their full length enhances its beauty, whilst the size of the blooms is just sufficient to be useful for cutting, being 4 inches across. Market White is also good, but not so perfect as Parisiana; both are early in bloom, flowering in September; and White Quintus, which opens its buds a little later than the two named above, is a most floriferous and beautiful plant.

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Amongst the glowing ruby tints which are now so valuable in the garden, Goacher's Crimson is the best of the early chrysanthemums—a richly coloured flower, which is borne on a stout stem, and most brilliant in effect; Roi des Précoces, too, is remarkably good, in a slightly darker shade of red; and Black Prince is a gorgeous blossom of large size in crimson, with a golden reverse. Carrie is the name of one of the brightest of the yellow varieties, a most floriferous plant, with flowers of the shade of yellow seen in the dandelion; Horace Martin is a sport from the well-known older variety Crimson Marie Masse, which, like Carrie, is dwarf (about 30 inches high), and produces yellow flowers; Polly is in a deep tint, almost reaching orange, and of the same height; whilst Rosie is in terra-cotta-red (a decidedly uncommon tint in chrysanthemums), and Coral Queen is in a lovely shade of pink, early, and with large flowers. Louis Lemaire is bronzy apricot in tint, and Rabbie Burns, a sport from the older Marie Masse, is in bright coral-pink, a beautiful flower.

We are getting rather tired of the immense blooms of the show chrysanthemums, which are of no use for cutting, and, if staged alone, have a decidedly heavy effect. But the single varieties are charming, being far more really decorative, and very elegant in sprays of a few blooms, either on

the plant or in water.

Single, however, they scarcely are, for they have a thick fringe of petals around a daisy-like eye; but they are so useful and so easy to grow that every one should possess them. Some of the early-flowering single chrysanthemums can be grown in the open border, as they blossom in September and October. Distinction is one of the earliest to open, a large flower in rich pink; and the fine yellow blooms of Nonin's Single are also available in September. Covent Garden White, a very good dwarf variety, blossoms early in October, with the delicate blush-pink flowers of Early Queen; and the deep crimson of Mrs. C. Curtis, which also is a free-flowering bushy plant, most useful for cutting. Elegans, too, in golden chestnut and red, is very handsome,

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and these six varieties will be found to be first rate in every way.

Amongst the best of those which bloom a little later are the following: Mary Richardson, in a wonderfully clear shade of coral-pink, most effective and distinct; Miss F. K. Charlton, with elegantly curled petals, in pure white, a very beautiful flower, about 5 inches across; Kitty Bourne, in rich golden yellow; Ladysmith, a really single dwarf plant, which produces many blossoms very much like those of a good pink pyrethrum; Lady Margaret Douglas, a large handsome flower, in white; and Miss A. Holden, in a delightful shade of primrose-yellow, a sport from the older variety, Mary Anderson. At Christmas we still have the gay blossoms of J. T. Angus, in deep pink; Nora Davies, in terra-cotta-red; Pretoria, a glowing golden flower; with the smaller yellow blooms of Treasure and the great white flowers of Dorothy Fortescue; and many more almost equally good can be selected from a catalogue of these plants, such as that of Mr. Wells, of Merstham, who makes a speciality of them. Most of the single chrysanthemums should be slightly disbudded, as the sprays of bloom containing from two to five flowers are the most effective. They can be grown on the same lines as the large-flowered chrysanthemums, putting in cuttings yearly from the young shoots at the base of the old plant, and potting these on several times until the end of June, when they should be placed in their flowering pots with a rich compost. Plenty of air and sunshine should be given to the plants all through their growth, with enough water to prevent them from drooping, and liquid manure (or soot-water) in a thin clear state twice a week from the time that their flower buds show. But they are not so troublesome to manage as the gigantic blossoms of the shows, and are much more desirable for the amateur.

The garden is still gay with dahlias, Michaelmas daisies, &c., but with the first sharp frost the dahlias must be taken in, and before this arrives it is a good plan to go round them, tying a label on each with its name, as otherwise confusion

is apt to result amongst them in the spring; cannas, too need the same precaution, and it will be desirable to see that all the labels on valuable and rare plants are fit to stand the winter.

The violets (which in the case of the Neapolitans have been flowering for some weeks) should now be either placed in a frame or have a frame lifted over them in cold damp districts; but it must not be forgotten that they require an abundance of air night and day, and the frame lights should not be drawn over them, except in sharp weather or in heavy rain, when they should be raised by means of a piece of wood or a small flower pot vertically over the plants, only closing the frames completely during sharp frosty nights. In making up a bed in a frame for violets it is necessary to raise them almost to the glass by nearly filling the frame with cuttings of shrubs or other garden rubbish before adding 10 inches of good rich loam on the top, in which the clumps of violets can be planted, taking care not to shake off the soil from their roots, and putting them about I foot apart from each other.

The large purple violets with long stems produced by the variety Princess of Wales are the most popular of all; but the double flowers of the Neapolitan, Parma, and other Italian violets, such as the beautiful white Conte di Brazza, are also general favourites, and all these are worth growing under glass. In the open ground the hardy Czar violets from Russia, both in purple and in white, defy the winter and seed readily on the borders, making a purple carpet over them in February; and all the single varieties are hardy enough to do well in the open air in Devonshire if given a sunny position, sheltered from the cold winds by a hedge or wall at the back of them.

Tuberoses are well known for their rich fragrance, and they may be grown by all in the summer, whilst with sufficient warmth they will open early and late in the conservatory; yet they are not often seen, as their culture needs to be understood (although it is quite easy) if fine flowers and healthy plants are to be the result.

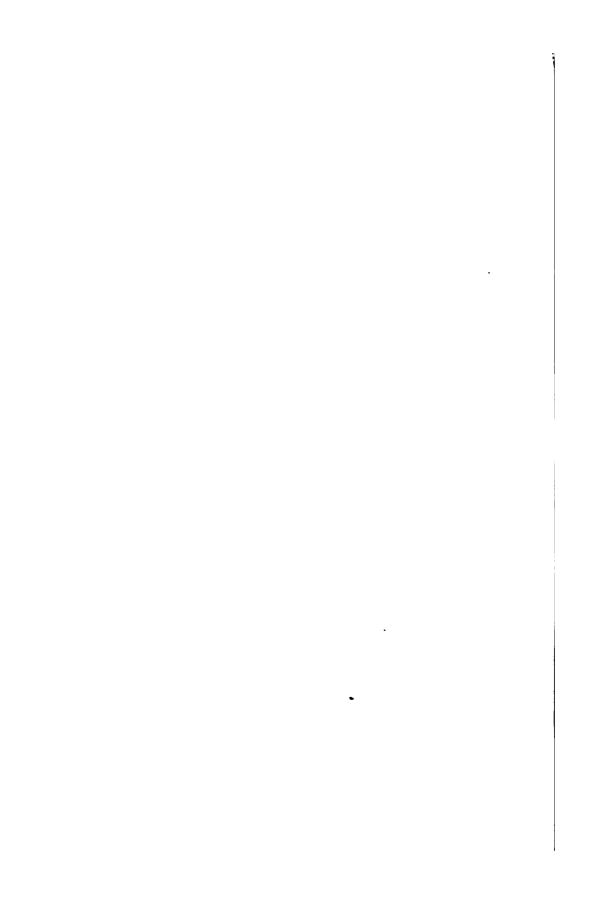
THIRD WEEK IN OCTOBER

The bulbs (which are rather large) should be ordered at once, and potted up directly they arrive. If left in a paper bag for only a few days mildew is apt to appear at their base, and this is very injurious, if not fatal, to the plant. case the mildew should be wiped off with a soft cloth, and a little powdered sulphur or charcoal dust rubbed gently over the bulb, drying it before a fire for a few minutes, after which each bulb should be potted separately in a 5-inch or 6-inch pot (according to its size), well drained, with a compost of loam and leaf-mould in equal quantities, adding a little sand and charcoal, especially under and around the bulb, which, however, should only be half-covered, although its point should be level with the top of the pot. This compost must be moist (but not too wet) when used, and must be firmly pressed around the bulb, after which the pot should stand over hot-water pipes in a temperature of about 60°, water being supplied only (and then in a lukewarm state) when the soil is thoroughly dry, until the green point of the foliage starts; after which more water is needed, and before long the supply will need to be ample, with syringing, too, daily.

Although it may be several weeks before the bulbs start into growth (and all that time they must be kept on the dry side, or they may rot before roots are formed), when once this dormant period is over the upper part of the pot should be filled with rich manurial compost, and they can scarcely have too much moisture then, both in the atmosphere and at the roots; any failure to supply this will result in an attack of red spider, which quickly destroys the foliage and cripples

the plant.

The earliest variety for spring work is the African tuberose; but the American species, Excelsior Pearl (blooming later in the season), is a still finer plant, and there are other good varieties to be found in Messrs. Sutton's and other catalogues. For succession it is desirable to grow a few of each kind, for their rich scent in the conservatory is noticeable. The plants look best when grouped with other flowers and ferns on the ground, as their stems are tall.



FOURTH WEEK IN OCTOBER

PASSIFLORA PRINCEPS

Passion flowers are amongst the most elegant of greenhouse climbers, needing, however, careful pruning after their flowering season.

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Passiflora Princeps. 376

CHAPTER XL

FOURTH WEEK IN OCTOBER

A S the power of the sun declines it becomes necessary to give all the light possible to plants under glass, and any shading which may have been useful in summer should now be removed.

Not only so, but any climbers which have reached the roof and have been flowering under it, must now be thinned (if not pruned severely), so that the plants below shall not suffer. Specially is this the case with Passiflora racemosa princeps and P. Constance Elliott, both being rampant growers, which need to be attended to at this time under glass. The first-named passion flower, with blossoms in a curious shade of crimson, blooms on the wood of the previous year, throwing long trails from the roof, which are very decorative; these must therefore be spared as much as possible, thinning out the weaker shoots and those which cross each other, so as to allow the sunshine to penetrate between and ripen the wood.

The white passion flower (a sport from P. cœrulea, named Constance Elliott), on the other hand, blossoms on the wood of the current season, and may therefore be more severely pruned; it, however, will continue to bloom for some weeks yet, with slight warmth, and its beautiful trails of blossom may be cut gradually back after flowering, avoiding the serious shock to the roots which close pruning would give if carried out in one day.

The rich carmine-crimson blooms of tacsonia Von Volkemi (nearly allied to the passifloras) are remarkably effective in the greenhouse, and this, as well as the two passion flowers

previously named, may be grown in any place from which frost is excluded. It is a strong grower, and will need much reduction of its growths at this time where these (as they should do) hang from the glass roof; but this pruning should be gradually done, leaving the stronger shoots and those which are well placed to cover the roof during the following summer. All the passion flowers prefer a free root run, and should be planted in a border at least I foot wide, giving them a compost of three parts good loam to one of peat and one of leaf-mould; and they may be put in either in the autumn (with moderate warmth) or in March, where the frost is barely excluded. Where that terrible pest, mealy bug, is present, it is not advisable to plant passion flowers, for these insects immediately infest them, and are almost impossible to eradicate, as they hide in the bracts at the axils of the leaves, and multiply themselves rapidly there.

For a cool greenhouse which is not too sunny, the lovely pink bells of Lapageria rosea are very suitable; the white variety, L. alba, too, is charming. These plants will survive the winter in the open air in sheltered nooks in Cornwall, and are so nearly hardy that they will grow to perfection in any rather shady greenhouse free from severe frost, giving them a free root run, with a peaty compost mixed with charcoal and thoroughly well drained. The first week in March is the best time to plant a lapageria, and care should be taken to secure a plant of a good type, for there are many seedling varieties in the market which are scarcely worth growing. Lapagerias, too, need constant syringing in summer, as well as decided dryness in winter, for many insects attack them; if their delicate wreaths of blossom are trained too near the glass they are apt to fall a prey to red spider, and in a sunny greenhouse they should be extended on strings below the other climbers, which will thus afford them the shade they need. Plenty of air is necessary for these plants, and they need no pruning, except to remove weak and exhausted growths. They are best propagated by layering the shoots, coiling them round and pegging them firmly down into a large pot or box of peat, sand, and char-

FOURTH WEEK IN OCTOBER

coal, when roots will form at each axil of the leaves, and shoots appear from these; the young plants can then be severed and potted up separately.

Plumbago capense, with its masses of bloom in delicate azure blue, is also nearly hardy, and may be grown to perfection in a cool greenhouse, cutting it back rather severely as soon as its flowers are over. The compost it prefers is a mixture of good rich loam, with a little peat and leaf-mould, adding a top-dressing of richer material in spring, when the

plant is in full growth.

Roses do better trained like vines under the glass of a cool greenhouse than with much fire heat, and no such place should be without them. The new climbing rose of the semper florens group, Field Marshal, may be relied upon to bloom both early and very late with the slight protection of glass. The old favourite, Maréchal Niel, is a charming companion for it, with the rich apricot flowers of William Allen Richardson, the salmon-pink blossoms of climbing Caroline Testout (one of the loveliest of roses), and the pure white of Niphetos. The present time is the best in which to plant climbing roses, taking care to place them in a position from which they will quickly reach the glass, and spreading out their roots horizontally in a bed of good turfy loam, soot, and charcoal, without any fresh manure in contact with the rootlets, as this is most injurious to them.

One of the best of greenhouse climbers is Jasminum grandiflorum, which produces its large fragrant flowers throughout the winter, i.e., from October till March. Few blossoms can excel them in delicious perfume and elegance, and this is a plant which should be in every conservatory which has a minimum temperature of 45° in winter.

This jasmine does well when planted in a border under glass, giving it good loam, and a yearly mulch of rich material laid over its roots in August; it should be trained under the glass in the full sunshine, and can be pruned back rather hard in April, after flowering. The blooms are produced on the new growths, and unless the plant is cut back

considerably it is apt to become untidy. The only blight which troubles it is scale, a most injurious insect, which should never be allowed to obtain a footing on this plant. In a bad case it may be necessary to cut the jasmine down to within a foot or so of the ground in spring, when the bare stem left can easily be cleansed with hot soap and water, afterwards spraying it with methylated spirits from a small scent spray, in case of the escape of any insects. Cuttings of the half-ripened shoots can be put in during the early summer, and will soon make good plants.

Heliotrope, grown against a sunny wall in the border of a greenhouse, will provide plenty of flowers throughout the winter if pruned back in August; for every fresh shoot will contain a spray of blossom. But this plant needs plenty of light and warmth to open its buds, as well as rich soil. If well supported, it will bloom continuously throughout the

year.

Apples and pears are not often too abundant in our gardens, and therefore it is as well to take extra precautions that the crop be not wasted, as, unfortunately, so much British fruit appears to be. It is not always understood by the ordinary gardener that each separate variety needs to be gathered in at one special date; for there are only a very few days in which the pears are ready to fall to the ground and yet have not done so. They are not then ripe, strictly speaking; in fact, some late pears and apples need to lie in a dry cellar or a fruit-room for several months before they are fit to eat; but if the skin of the fruit should receive a bruise or any injury, however slight, rottenness will take place before ripeness, and so the crop is lost.

Shallow flat baskets, padded with a cloth, are the best for gathering fruit, and the right moment can be ascertained by lifting the pear to a horizontal position in the palm of the left hand, when it will part from the stem if ready to do so; and it should be conveyed to the shelves in a dark, dry cellar, or room, with a medium temperature free from frost, without any bruise whatever. Fruit already stored needs to be looked over often in case of any injured specimen setting

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up mildew amongst the rest, for this will spread with great rapidity if allowed to do so.

Newspaper is the best material on which to lay out the fruit, and each pear should not quite touch the others, if possible, storing each variety together in a separate place. In the case of valuable dessert fruit it is usually a mistake to leave the selection of those which are ripe to a servant, who is often pressed for time, and cannot give the necessary attention to the matter. Never should a pear be pinched near the stem to ascertain its state, for this, of course, will result in a bruise should it still need to be kept in the store; when really fit to eat the colour of the skin changes, taking on a warmer tint, which can readily be recognised by an observant eye, whilst there is a delicious aroma noticeable at the apex of the fruit when ripeness has taken place. It is, therefore, most desirable to visit the place daily where much fruit is stored, both to remove that which is ripe and to prevent any injury to the rest. With a good selection of pears it is possible to supply the table with them from August until the following May; but this can only be done by those who not only grow the fruit, but avoid all waste by personal attention to the best methods of gathering and storing it for the winter.

FIRST WEEK IN NOVEMBER	

THE WINTER-FLOWERING CACTUS (EPIPHYLLUM TRUNCATUM)

An excellent plant is this for room decoration or for filling a basket in the conservatory in winter. It should now have all the sunshine and warmth possible if required for early bloom. • •



CHAPTER XLI

FIRST WEEK IN NOVEMBER

A MONGST the brightest of our garden flowers in the late autumn is the Kaffir lily (Schyzostylis coccinea), a South African irid in rich scarlet-crimson, which begins to blossom about the end of October, and continues to throw up its graceful spikes of bloom until severe frost intervenes.

The borders are now brilliant with these winter gladioles, for they multiply themselves in a delightful way if left alone for two or three years, appearing in numbers where only a few roots were originally put in; but it is advisable to plant them in a somewhat sheltered position, with deep, yet rather light, well-drained soil, for they do not enjoy a waterlogged border, nor yet one which is fully open to the gales of autumn. They flourish well, however, on a raised border of gravel soil a few feet from a south-east wall or hedge, for the storms of this season usually come from the west, and in this way the slender stems, heavy with blossoms, obtain the necessary shelter. Nearly allied to the ixias as well as the gladioli, this plant is different from either, yet resembles Most valuable for cutting, they may be also raised in clumps for the conservatory, potting them as far as possible without much disturbance of their roots, and supplying them with plenty of tepid water.

Cosmea bipinnata, too, is now in full bloom in the garden. These Mexican asters are of such slow growth that the seed (for the plant is an annual) should be sown as early as possible in the year, to give them time to open their flowers in October and November; but then they take possession of

the garden, making a grand show of colour just as other blossoms fail us. The white cosmeas are charming everywhere, and the crimson and pink varieties look well in groups by themselves; they are extremely useful for table decoration (as a change from the ubiquitous chrysanthemum), glowing under artificial light in a wonderful way, but it must be confessed that they are not in a good "daylight" tint, for they approach too nearly to that terrible shade magenta to harmonise with any other red or pink blossom. But white cosmeas, mixed with Kaffir lilies, and set off by the exquisite carmine-yellow and green foliage which the strawberry-bed just now produces, can scarcely be excelled for colour and grace, whilst neither of these flowers

are by any means common.

Eupatorium odoratum, with fragrant fluffy white blossoms, is a useful winter-flowering plant of easy growth, which we find very decorative in the conservatory, for there are not many white blossoms of light effect at this time of year to group with the massive spathes of arum lilies and the gorgeous carmine bracts of the poinsettia. This eupatorium (an American cousin of our native hemp agrimony) is not quite hardy, but it is one of that valuable group of winter flowers which do best planted out in a rich border during the summer, and give no trouble at all for half the year. Amongst these plants are several salvias (splendens, rutilans, pitcheri, &c.), as well as arum lilies, all of which should be placed in well-prepared soil in the kitchen garden in May, potting them up again in September for the winter. When the blossoms of the eupatorium are over the plant should be somewhat severely pruned, still keeping it under glass—well syringed, but not over-watered at the root-until new growths appear, when it may be repotted, shaking out about half of the old soil, and placing it in a smaller pot than before, with a rich compost of equal parts of loam and dried cow manure. At the end of May the plant should be turned out of its pot into the open border, and the only attention which will be needed, both by eupatoriums and winter-flowering salvias in summer, will be to pinch out the

FIRST WEEK IN NOVEMBER

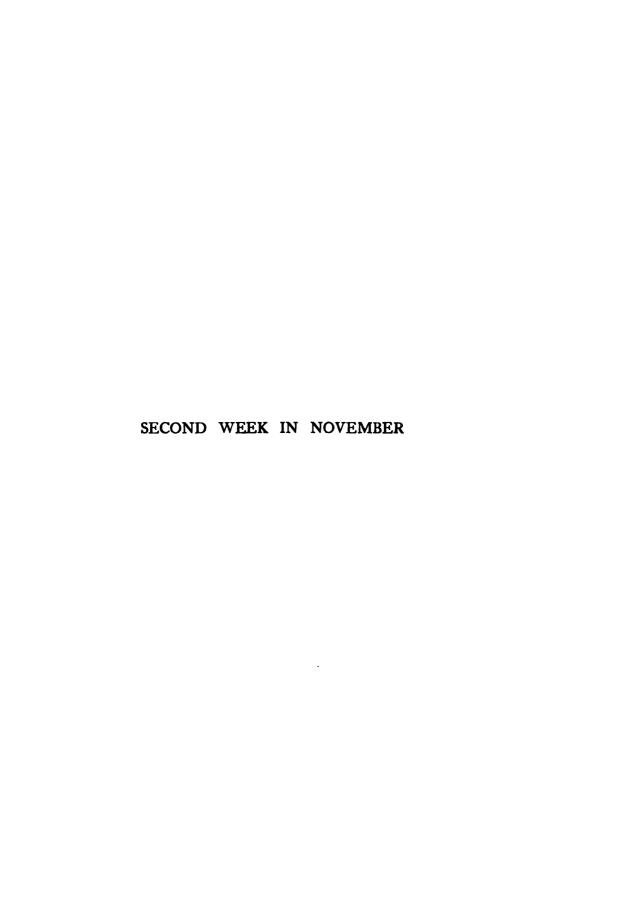
points of their shoots several times as they grow, in order to prevent premature blossoms from appearing, and to make them bushy. But plants which are more than a year old are apt to become untidy, and cuttings or slips of both plants should be taken yearly in March from the young growths, which will make excellent specimens if turned into the border with the rest in June, flowering strongly the following autumn. The usual plan of throwing away all the old plants, however, is a mistake where plenty of cut flowers are desired in winter, as a larger specimen than those which can grow in a few months from cuttings will provide a quantity of flowers, besides being very useful in the grouping of conservatory plants of fine growth.

A very brilliant flower is Epiphyllum truncatum, one of the cactus family, which blooms in mid-winter, its singular hose-in-hose blossoms being produced at the points of its flat truncated leaves in great abundance. The colour of this variety is a metallic-pink inclining to magenta, but, as it flowers at a time when red is not too abundant in the conservatory, it is a most desirable plant. Other less common varieties are in salmon-pink (E. truncatum salmoneum), white, violet, &c., but they are not all so free flowering as the type. E. Russellianum Gærtneri, however (a new introduction of Mr. James Veitch's), is very floriferous, producing larger red blossoms than those of the type at every point of its broader leaves, a most desirable variety. These cacti should never become quite dry, even in winter.

Cyclamen persicum, which flowers from November till April, should be grown in abundance from seed, as it is a valuable addition to our winter blossoms, and can scarcely be overdone in our greenhouses, besides being a charming window plant and useful for cutting. Seed should be sown in the spring, and again in October, to ensure a succession of flowers throughout many months, placing each seed (which should be of a first-rate strain) 2 inches from the next in a shallow, well-drained box of light soil, leaf-mould, sand, and charcoal dust. The seeds, which are rather large, should be only just covered, and the soil must be kept

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moist (though not soaked, whilst already damp), and covered with a piece of glass in a temperature of about 60°, allowing air, however, at the corners, for ventilation is necessary for all germination. The box should stand in a slightly shaded position, and the young plants may be given more air as soon as they are up, potting each up singly in a small thumb-pot as soon as its corm attains the size of a pea. Cyclamens should be kept growing steadily, repotting them as their roots reach the bottom of the pot to the next size several times as they require it, and keeping them under glass with a moist atmosphere, and in a partially shaded position, until the flowers appear, the corms being invariably placed on the surface of the soil, the base only being covered. Sutton's Salmon Queen cyclamen and Carter's Perfection are both remarkably good strains, producing many first-rate plants from a packet of seed; but in every case there will be a few which are not so good as the rest, and these should be discarded, keeping only those seedlings of which the flowers are of perfect shape. After blooming the cyclamens should be kept rather dry (but not absolutely so) in the greenhouse until June, when they can be plunged in the open air to ripen their corms, potting them up in July or August just as fresh growths appear. The soil which suits them best is a compost of good turfy loam, with half the quantity of oak-leaf mould, and a little charcoal, soot, and sand, with abundant drainage, and this mixture should be carefully cleared from all insect life, for many grubs are specially partial to the corms of cyclamen. It is a good plan to heat the soil thoroughly over a fire before using it, or else to allow it to become quite dry, when all insects will leave it.



CHRYSANTHEMUM (CHARLES DAVIS)

The chrysanthemum shows are now opened, and many new and fine varieties exhibited yearly; but some of the older chrysanthemums are more satisfactory to begin with.

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CHRYSANTHEMUM CHARLES DAVIS.

CHAPTER XLII

SECOND WEEK IN NOVEMBER

THE queen of the autumn now reigns, and many are the courts she holds throughout the land, rejoicing our eyes with the rich and varied colours of her robes. But it is to be feared that the chrysanthemum is suffering under the great popularity it possesses, for the enormous blooms to be seen in the shows are often overfed, and the plant which produces them becomes weakly in constitution, refusing to produce good cuttings, and eventually decaying, after its one bloom has reached an abnormal size. sonally, I must confess to a disinclination to measure the beauty of a flower by its diameter. Many a blossom of moderate dimensions but of exquisite colouring and shape is disqualified and neglected because it refuses to extend its petals to the required measurement; and this is surely a serious mistake, for size does not always make for elegance, but rather tends to coarseness.

Those who are content with an abundance of flowers of moderate size, however, may easily obtain them, for chrysanthemums are hardy plants, and can be grown in the open air (the earlier flowering varieties in the border, and those which flower later in pots), so that the blooms (which alone appear to object to the effects of frost) may not be injured by it, for the slight shelter of a verandah, a cool greenhouse, or a porch will be sufficient for them. The cultivators of these plants find it necessary to grow a number of them in a natural way in order to keep up a supply of healthy cuttings, and these should be taken when about 2 inches long, being sturdy and strong, and having appeared at a slight distance

from the stem of the plant, which should be cut down to the ground directly the blossoms are over. Chrysanthemums which have been too highly fed and kept in a warm conservatory often fail to throw up these sturdy shoots; the plants should be given all the air possible, and kept fairly moist and sheltered from frost only where cuttings are required, a cool frame being a very suitable place for them after the stems are cut down. Each cutting, having been relieved of its lower leaves, should be placed in a thumb-pot, with a little fine moist soil, consisting of loam, sand, and leaf-mould in equal parts, with a dusting of powdered charcoal, making it firm, and placing the pots in a cutting box out of frost's way until the little plants are rooted. useful aid in rooting cuttings is merely a common deal box, about I foot deep, and of about the same breadth, which should contain a few inches of fine coal ashes at the bottom, and can be fitted with one or two pieces of glass as a covering. The ashes below the pots should be kept constantly damp, in order to afford the necessary moisture to support the foliage of the cuttings whilst they are forming rootlets; the soil in the pots should not, however, be over watered, only supplying water (always tepid) when it is fairly dry, for otherwise the cuttings may rot. Every scrap of fading leaves or other débris must be removed at once from a cutting-box, as mildew will be likely to appear on decaying material, and the amount of air afforded should be regulated by the length of time the cuttings have been made, increasing it as they form roots, and removing the glass entirely as soon as practicable, for chrysanthemums must not be coddled or allowed to become drawn up and weakly. When the glass is removed the little plants should be placed on a shelf near the glass for a few days, transferring them to a cold frame early in March; then they should have plenty of air in mild weather, but be covered with a mat on frosty nights. When the rootlets reach the hole of the pot the plants should be shifted into 4-inch pots, adding a little welldecomposed manure to the compost before mentioned; and this potting-on must be repeated early in June, after

SECOND WEEK IN NOVEMBER

which the plants should be ready for their final potting, using a rich compost and pots about 9 inches across at the top. Bone meal, Clay's fertiliser, and charcoal in small lumps should be mixed with this compost, but some varieties are impatient of extremely rich soil, and it is therefore desirable to consult a list of these plants (usually given in the catalogues of the specialists in chrysanthemums) before placing them in their flowering pots. The plants must then stand in the full sunshine, with abundance of air and space, crowding them together at this time being very injurious to them, as they need to ripen their growths to produce good flower buds.

Careful watering will be needed throughout, for every drooping leaf will shrivel away, thus spoiling the appearance of the plant; syringing, too, is desirable in warm, dry weather, and should be carried out towards evening.

The mysteries of stopping the growths and "taking the buds" are only to be learned by a careful consultation of the aforesaid lists for each separate variety, the dates at which these operations should be carried out being very various; but the month of August is an important time in this connection where large blooms are wanted. Before the plants are taken under shelter they should be carefully staked and sheltered from the storms of autumn, and when housed it will be necessary to fumigate the greenhouse to prevent the attacks of green fly, &cc.

Feeding (which must not be overdone) consists of giving weak doses of soot-water or other liquid manure twice a week from the middle of August until the colour of the bud is apparent, after which pure water only should be given, and when the buds are well set a sprinkling of concentrated manure in very small quantity may be occasionally added over the roots.

Many of the older varieties (such as Charles Davis, apricot and orange; Florence Molyneux, in creamy white; Mme. Thérèse Ray and Nellie Pockett, both pure white; Duke of Edinburgh, deep red; William Seward, ruby-red; and Golden Nugget, yellow) are of easier cultivation than

some of the latest introductions; but Mrs. Mease, in pale primrose, is one of the loveliest of these, and also of good constitution, producing flowers of most elegant form.

Ferns and selaginellas should be used freely in arranging the somewhat stiff chrysanthemum, as well as larger foliage

plants.

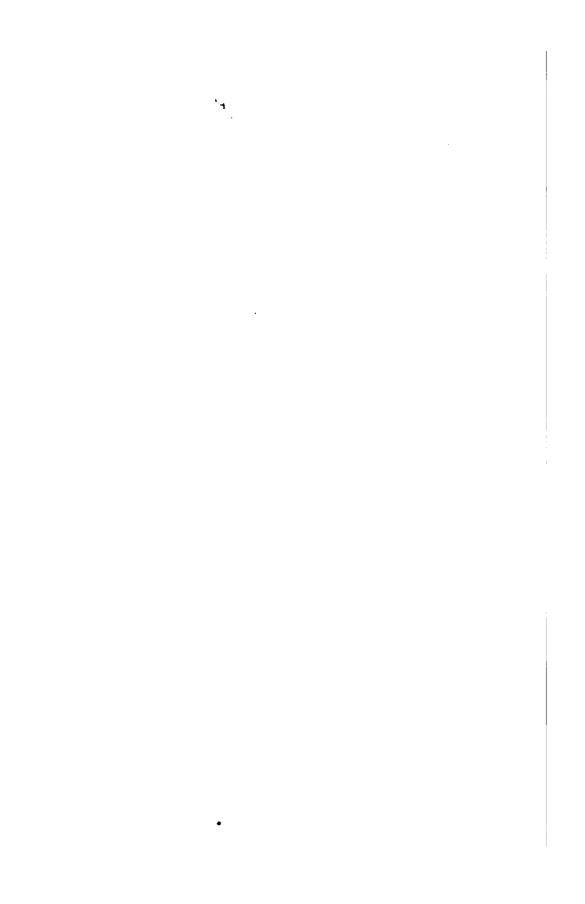
The selaginellas, midway, as they seem to be, between the ferns and the mosses, are yet distinct from both, and they

certainly have a charm of their own.

Very beautiful is the lace-like denticulation of their leaves, which are not unlike some forms of seaweed, except in colour; and the metallic shades of blue seen on some of the selaginellas, as well as the bright red stems of others, add to their distinction. The most common of the selaginellas—and at the same time the hardiest—is the low creeping plant often seen in our greenhouses, S. Kraussiana, and this is useful as an edging to a narrow border under glass or to cover the roots of a basket fern. The golden form (S. Kraussiana aurea) is scarcely so desirable as the green one, for its yellow tint is not easily distinguishable from that of a decaying plant, and the rich verdure of the ordinary kind is distinctly valuable. S. pubescens Brauni needs rather more warmth, and should have a thoroughly moist atmosphere during the summer when in growth; but at this time of year, when the plant is almost dormant, it will stand well in a room without gas, and is remarkably handsome as a furnishing plant, for its elegant sprays are in the richest shades of green, being also very valuable for cutting, as they do not fade quickly in water. It grows to the height of 12 inches, and is a native of the East Indies; but it will flourish in a minimum temperature of 50°, and is more easily managed than most of the larger selaginellas, which require a thoroughly saturated atmosphere at all times to do well. S. Martensii, a native of Mexico, is one of these, with upright seaweed-like fronds of great beauty; but it needs to be kept in a fernery with greenhouse temperature, and is of no use as a furnishing The climbing sprays of S. coesia arborea (also called Wildenovi altissima, or lævigata) are like a peacock's

SECOND WEEK IN NOVEMBER

feather, with a sheen of metallic blue. This is one of the most beautiful of all, but is not very easy to grow, as it requires a deep shade to produce its finest tints, and will not bear a lower temperature than 550, disappearing in the winter if subjected to a chill. It should be planted in rockwork on the shady side of a warm fernery, and it will then throw its exquisite branches far and wide, and assume its richest colouring. Another very elegant plant is S. tasselata, from Brazil, with drooping tasselled leaves of considerable breadth; S. grandis, too, a variety from Borneo, with upright fringed leaves, giving it the appearance of a miniature forest, is very distinct, but it needs a thoroughly saturated atmosphere, with abundance of warmth, to do well, and should be covered with a bell-glass as a rule. All the greenhouse selaginellas should have a compost of peat in small lumps, leaf-mould, sphagnum moss (cut up into lengths of an inch or two), charcoal, and sand; and broad pans will suit them better than pots as giving more room for their rambling rootlets. They also do well in a rockery under glass. The moist tropical parts of the earth are largely clothed with these lovely plants, but in Britain we have only one native variety—Selaginella spinulosa—which may be found in boggy places on the mountains of the Lake District, North Wales, and elsewhere. It has creeping slender stems, rooting into the soil as they grow, with short erect branches a few inches high. Lycopodiums (club mosses) are nearly related to the selaginellas, although distinct from them in the way they reproduce themselves; both, however, produce their spores at the axils of their leaves, not on the back of them, as do the ferns, nor on separate stalks like the mosses. Five varieties of Lycopodium are found in our islands, chiefly in the mountainous districts of Wales, Cumberland, and Scotland, on stony moors or boggy heaths; L. clavatum is not so uncommon as the rest of these plants.



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THIRD	WEEK	IN :	NOVEM	BER		
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THE FAIRY LILY (PANCRATIUM FRAGRANS)

This is the latest or the fairy lilies to blossom, and, at the same time, one of the most fragrant. It is a greenhouse plant of great beauty.







THE FAIRY LILY.

CHAPTER XLIII

THIRD WEEK IN NOVEMBER

NE of the brightest of the autumn flowers in the conservatory is the Vallota or Scarborough lily (Amaryllis purpurea), which should be retarded, rather than hastened, into bloom, as it is so useful to fill the gap between the summer flowers and the chrysanthemums. It is essentially an amateur's plant, for it prefers to be left alone for some years in the same pot, and will grow and flourish in a window. Repotting is only necessary when the bulbs become too many for the pot, and even then it is not desirable to do more than to shift the whole plant into a larger pot, giving it fresh drainage and some good soil, or to divide the ball of roots in two parts without more disturbance of them than cannot be avoided, as the Vallota lily only blossoms well when its roots are tight in the pot. It produces a number of little bulbs on the surface, which can be removed without difficulty, and grown on in smaller pots until they attain flowering size. Like the rest of the amaryllids, they do best in a compost of good rich loam, leaf-mould, and sand, with a little soot intermixed, but no fresh manure, and they should be repotted (when necessary) in the spring. During the early autumn, when they have made their growth, the plants should stand in a sunny place in the open air to ripen thoroughly, after which the blooms will push up, the intense scarlet of their flowers being very effective. As the Vallota never loses all its foliage, it should be watered all the year round; but the quantity needed will be much less in the winter than during the summer growth, and a little soot-water (or

other liquid manure) in a thin, clear state, may be given twice a week to these plants with advantage from May till October. When the pot is very full of roots it is not easy to supply them thoroughly with liquid; in this case the pot should stand for ten minutes in tepid water at least once in the week, allowing the water to reach the rim of the pot (and saturate the entire ball of roots) before it is removed.

Pancratium fragrans (the fairy lily) is a bulb which does very well in a moderately warm greenhouse, though usually considered a hothouse plant. Like the rest of the amaryllidæ, it should be kept rather dry when dormant, and repotted in the early spring just as signs of fresh growth appear, giving it a compost of three parts good loam to one of leaf-mould, with a little soot, sand, and charcoal. Water, which should always be given in a tepid state, must be sparingly supplied until the growth becomes strong, after which the pancratium will need a plentiful supply, with liquid manure or soot-water, in a very thin state, once a week when the leaves are large. It produces its delicate and fragrant white blossoms in the early autumn, and is well worthy of a place in the conservatory at that time, or will stand in the drawing-room without injury whilst in blossom. This bulb is easily grown, preferring to be left alone when it reaches flowering size until the pot is full of roots, when the bulbs may be divided just as fresh growth appears. All the amaryllids (to which the pancratiums belong) should be grown in the compost above mentioned, giving them a mulch of richer material just as they start into life after their annual rest, during which they require but little water, although ample supplies should be bestowed upon them when making their very rapid growth, and this, in the case of pancratiums under glass, should be given in a tepid state, or lukewarm in a hothouse.

Pancratium calathinum (syn. Ismene), the sea daffodil, is often confused with P. maritimum, but is a distinct plant. It produces a pair of pure white fringed cups, about 3 inches in diameter, and is a native of South America.

THIRD WEEK IN NOVEMBER

This plant needs a greenhouse; but P. illyricum and P. luteum (a yellow flower) are both hardy enough for the garden, if kept dry in winter by means of a bell-glass over their roots. The hymenocallises (which are nearly allied to the pancratiums) are more delicate, most of them needing considerable warmth. The best of them all is H. macrostephana, which produces umbels of from six to ten blooms of singular but elegant shape, each flower having a funnel-shaped corona 2 inches long and of the same width, with a spreading fringed perianth 3 inches long. The Guiana variety (H. guianensis) is somewhat similar, with twisted segments, and both are rare and valuable plants for a hothouse.

The Watsonias, irids from South Africa, blossom so late in the season that they suffer from the storms of autumn, and these bulbs (nearly allied to the gladioli) are therefore more suitable for the conservatory in pots than for the garden. Each bulb should be grown in a separate pot, starting them in the early spring under glass, but the plants can stand in the open air during the summer, being brought in again during September. There are many varieties of Watsonias, one of the best being W. iridiflora Arderni, in pink and white.

The zephyrantes, too, blossom late in the year. Z. atamasco (in pure white) at this time. It is a delicate, crocuslike flower, needing to be kept under glass, except in the summer, when its growths should be ripened in the full sunshine out-of-doors. It is said to be hardy enough for a sheltered situation in the garden; but we have not found it so, the bulbs disappearing in the winter when planted

out on the terrace border.

Sternbergia Lutea, another crocus-like bulb, needs the same treatment, and is not perfectly hardy. The flowers are in brilliant yellow, appearing after the foliage has ripened away. The newer Sternbergia Fischarianum is very similar in appearance, but flowers in the spring.

In the wild garden, colchicums (meadow saffrons) make a rich display of colour in the autumn when grown in broad

masses amongst the grass. In their case, too, the foliage is wanting at the time of flowering; and all those plants which do not produce leaves and flowers at the same time look best when surrounded by greenery, such as grass, or they can be placed amongst carpeting plants with advantage to their appearance when in bloom.

FOURTH WEEK IN NOVEMBER

A GHENT AZALBA

These hybrid azaleas are in many delicate shades of apricot, salmon-pink, and red. They are perrectly hardy, and very floriferous.

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A GHENT AZALBA.

CHAPTER XLIV

FOURTH WEEK IN NOVEMBER

SURELY there are no more beautiful objects in the floral world than flowering shrubs when thriving and well grown, and our gardens should be well stocked with them, for the great bouquets of bloom which they bring year after year are wonderful value for their original cost and the little trouble they give when once established.

Unfortunately, too much space in the shrubbery is sometimes occupied by non-flowering shrubs, such as euonymus, box, yews, cypresses, &c., and the better class of flowering shrubs is seldom adequately represented; or some good shrubs may be starving and crushed almost out of existence by the encroachments of their stronger neighbours. This is, however, the best time in the year to remedy this state of things, and a walk round our shrubberies will often reveal many a hard case of oppression, as well as suggest where one useless plant may be removed or a beautiful flowering shrub may be put in.

But so much depends upon the aspect and position of the site, the dryness or moisture of the soil, and the height and natural outline of the plant to be selected for any salient point, that it will be well to pause, before making our selection, to consider these things, so that we may not afterwards repent our choice, but be rewarded in future years by the

beauty of a thriving specimen.

In a moist and shaded spot, for instance, a rhododendron will do well, and few shrubs are more handsome throughout the year, for the fine foliage of these plants is always noticeable, whilst the splendid trusses of bloom which they pro-

duce in spring can scarcely be excelled in magnificence, especially where a good collection of contrasting tints has been secured. If the position to be filled be well sheltered from the east winds of our spring, the early flowering varieties of rhododendron will open their blooms from February onwards in such a place, lighting it up with the rich crimson of their flowers; but for an exposed situation it is wiser to choose late flowering varieties, for these will be safely sheathed in their bud cases until May is over, when they will expand their flowers with impunity. collection of early rhododendrons will include Nobleanum (a dwarf plant flowering in February), R. mirabile, a very fine flower in bright pink; Prince Camille de Rohan, French white, with a crimson centre; R. Mrs. R. S. Holford, salmon-pink; R. limbatum, in white, edged with crimson; and W. H. Foster, with carmine flowers of great beauty; but where later blooming varieties are needed, R. Gauntletti, a magnificent flower in pale pink; R. Scarlet King, perhaps the most brilliant of all in this tint; R. Helène Schiffner, in pure white: R. John Waterer, a deep crimson flower; R. Mrs. Frederick Hankey, salmonred, spotted with maroon; and R. Pink Pearl (one of the loveliest of them all) may be selected as amongst the finest possible varieties. Rhododendrons can be grown in ordinary good loam mixed with a liberal allowance of half-rotted leaves, although where peat can be procured this material should also be added. They do not root very deeply, so that 18 inches of their special soil is all that is needed; but they should receive a considerable mulch of old hot-bed material (or decayed leaves and manure in equal proportions) yearly in March, laying this around their stems so far as to cover the space shaded by their foliage. Azalea mollis and its beautiful double hybrids (Ghent azaleas) are all quite hardy, too, and may be used as a border to a group of rhododendrons with great advantage, for their richly-tinted blossoms are most effective in the garden, as well as in the conservatory or the cool porch.

Spiræas, which are deciduous, and have slender stems,

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with light foliage, contrast well with stronger shrubs, but should not be placed near laurels or other plants which are apt to appropriate much space, and thus to starve slighter plants out of existence. Spiræas are excellent plants for the herbaceous border, placing them at the back, or otherwise, according to their height. The new Spiræa japonica coccinea is a valuable acquisition, for its rich crimson blooms are produced from August until the end of November. It is only 2 feet high, forming a dense bush, so that it groups well with S. Aitchesoni, also a newcomer (but from Afghanistan), which appears to be a variety of S. Lindleyana, with the same sort of fern-like foliage, but with red stems and pure white masses of fluffy flowers, while those of S. Lindleyana are cream-coloured. S. bumalda Antony Waterer is in deep pink, a fine hybrid raised in England. These shrubby spiræas must not be confused with the pink herbaceous spiræas (venusta, palmata, &c.), the latter being semiaquatic, whilst the shrubby varieties will grow in ordinary soil, although they enjoy moisture.

S. arguta multiflora is a new variety, about 3 feet high, with pendulous shoots several feet in length, which are covered in April with tiny white flowers. S. Thunbergi is equally dwarf; an excellent plant for the greenhouse, as it blooms naturally very early, and will bear slight forcing; and S. Cantoniensis (from China) grows to the height of 5 feet, producing large clusters of white flowers of a drooping habit.

Deutzias, too, are light in effect, very hardy, and their flowers are usually white, the double form of D. crenata. called the Pride of Rochester, being one of the best. D. gracilis, so largely grown for early forcing in pots, is as hardy as the rest, and may well be planted in the front of the border, when it will be a beautiful object in May. The new hybrid, D. gracilis rosea, has larger white flowers than the type, tinted with pink on the outside; other newcomers are D. carminea, a dwarf plant with carmine buds opening to white flowers, and D. corymbiflora, a handsome Chinese shrub with dense corymbs of pure white flowers.

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Buddlea globosa, the honey-ball tree of Japan, is very handsome and distinct, every shoot producing golden balls in May, whilst the silver-lined deep green foliage is evergreen. But this plant must be well sheltered from the east winds, which are apt to injure its young growths in spring. If it obtains deep soil and a position near a west wall it will do well under these conditions, forming a large bush, which is the resort of thousands of bees when the blossoms (which are so full of honey as to scent the air with it) are expanding.

The viburnums (guelder rose) from Japan and China are decorative, but not quite hardy, except in mild districts. Our own native Viburnum lantana (the wayfaring tree) has equally beautiful flowers, which are followed in the autumn by handsome berries in red and black, the large leaves turning bright crimson and yellow at the same time. V. opulus sterile, too, is quite hardy, and enjoys a moist position near water.

A very beautiful new shrub is Xanthoceras sorbifolia, from China, with finely-cut foliage like that of the mountain ash, and long spikes of bloom (in white, with a purple eye) which open early in the year, and therefore it should have a sheltered position, although the plant is otherwise quite hardy. Styrax obassia, which produces racemes of waxen bloom, like snowdrops in shape, is a shrub from Japan, which should also have a sheltered position.

For a dry place (such as a sunny bank) with light soil, where few shrubs will flourish, the sumachs (rhus) are most useful, for they all are indifferent in the matter of nourishment, throwing out roots many feet from their stems, which form suckers abundantly. Rhus cotinoides is a rare American variety of the more ordinary R. cotinus (the wigtree), which produces a mass of reddish fluffy hairs on its glaucous leaves about 7 feet in height; R. typhina (the stag's-horn sumach) gives a glorious mass of carmine in the autumn, when its leaves are about to fall; and R. glabra laciniata is a somewhat similar shrub, though not so tall.

In a similar position there are few more handsome shrubs than Cistus ladaniferus, an evergreen plant, producing

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hundreds of large paper-white flowers centred with blotches of golden brown and crimson. Light soil and a dry place will also suit our native yellow broom (Cytisus scoparius), too, which sows itself plentifully in such a situation, and forms grand masses of golden yellow in May. The early variety in pale primrose (C. præcox) is more dwarf, the taller white variety (C. albus) being also very decorative. C. Andreana is a remarkably handsome hybrid, with flowers in crimson and gold, producing a rich effect of colour; and C. purpureus incarnatus is a trailing broom, with pink flowers, which is an excellent plant for a dry sandy bank, as it is of easy culture in such a place.

Of the various daisy-trees (Olearia) the variety O. Haastii is the hardiest; O. Gunni (syn. Eurybia) is also a robust and most floriferous plant, forming a dense bush literally covered with daisies in June. O. nitida is one of the finest of these shrubs, with large leaves and beautiful sprays of daisy-like flowers in the early autumn; it is not,

however, quite hardy, except in the south.

Syringas (lilacs) of good varieties, Diervillas (syn. weigela), and many other beautiful shrubs will grow in most soils and positions, if carefully planted in a well-trenched border.

The robins, which have been rather quarrelsome and extremely busy in settling their positions in the garden for the winter, have now definitely taken possession each of his little domain, and woe be to any other robin which ventures to trespass into his neighbour's ground. Only one of the nestlings which were so extremely tame in the summer has managed to hold his ground against the sharp beak of his papa, which was freely used to drive them all to pastures new; but in the case of Rags (as we call this bird, in consequence of the untidy state of his plumage at one time) a strong determination to reside where biscuit is plentiful and always to be found in winter has finally overcome the rough usage he has endured, and he has obtained a footing in the shrubbery, next door to his mother Ruby, whilst his irate parent has retired to the nut bushes, which were his special residence last winter; for when once the young robin has

changed his speckled brown nest feathers, and has attained to the dignity of a scarlet waistcoat edged with delicate grey, he is able to hold his own in a stand up fight with another bird.

This arrangement of Nature, by which every part of the land is divided up into little kingdoms, each reigned over in winter by its special robin, is no doubt most beneficial; and although the conduct of the cock robin in driving away his progeny in autumn with beak and claws may at first sight seem cruel, yet if they all kept together in winter many of them must necessarily be starved; and at the same time the caterpillars and grubs in outlying districts would seriously increase and multiply. As it is, the piece of ground assigned to each robin is most assiduously searched every day for food, and it is wonderful to see the quickness with which the bird detects the lurking caterpillar in the curled leaf, or the worm which has come to the surface of the grass only for a moment. But no doubt many birds prefer the neighbourhood of a human habitation in winter; in fact, the birds in my garden go further, and fly into the room for food in the early morning, when frost holds the ground and they are specially hungry, feeding from the hand without fear. Robins, chaffinches, and the lovely little blue titmouse are amongst the tamest of them, and very pleasant little pensioners they are. Most of them have been tamed while very young, and have therefore never learned to be afraid of mankind; and Rags—who is one of Ruby's last brood—naturally takes his tone from his mother, who is quite fearless. Her mate is tame enough to feed constantly from the hand in summer (when he is really a pattern parent in working from morning to night in order to supply his numerous progeny, as well as his wife, with food); but as soon as his labours are over and he no longer needs help, he forgets his pretty manners, and gives himself up to illtemper and the work of chasing his children out of the garden. He separates from his wife (although he keeps a sharp eye upon her from his nut bushes), who resides in the trees at the bottom of the lawn; but she is often to be

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found in the company of Rags, for the mother bird never turns against her nestlings with any great severity, although she may help her mate in a mild sort of way occasionally in the work of dispersing them to new pastures whilst they are young.

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CALLISTEMON SPECIOSUS (THE CRIMSON BOTTLE-BRUSH)

This Australian shrub is remarkably handsome in the winter conservatory, and is almost hardy.



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CALLISTEMON SPECIOSUS.

CHAPTER XLV

FIRST WEEK IN DECEMBER

THE conservatory in winter should be quite as gay as in summer, for many are the blossoms which come from the Antipodes and various tropical countries, which will bloom during our cold months if supplied with slight warmth, to say nothing of the mass of bright bulbs which open about Christmas-time.

Abutilons (in many colours, white, pink, terracotta, crimson, and yellow) may be induced to blossom all through the year in a greenhouse if planted against a wall, with a free root run of rich soil. In fact, under these circumstances they are difficult to keep within bounds, growing so tall and so large that it becomes necessary to prune them severely each year in spring. These plants are nearly hardy, and will occasionally survive in a sheltered corner of a Devonshire garden if planted out against a sunny wall in May; they are therefore excellent plants for a cool greenhouse, only needing plenty of nourishment to do well there. As they are gross feeding and thirsty plants, they quickly exhaust the soil in a pot, and then drop their leaves and look miserable; but small specimens can be placed in the border (with rich soil) in May for the summer months, where they will grow strong and be found to be covered with buds in the autumn. Their roots should then be cut round, and raised a few days later, giving them rather large pots and a compost which may be half loam and half hot-bed material, with abundance of water. They will then bloom throughout the winter in a warm conservatory, and can be cut back in May, planting them out again in the border

The tops then removed will strike root readily in a shady corner of the greenhouse. Abutilon Swavitzi is usually grown for the beauty of its foliage, which is variegated with white; A. igneum is a handsome dwarf variety with deep red flowers, and A. vexillarium is still smaller, a pretty little plant, with tassel-like blossoms in red, yellow, and white, and variegated foliage. A hardy abutilon, which does well in the garden, is A. vitifolium, with glaucous foliage and white flowers 4 inches across; in the shelter of a south wall this plant will probably do well in any part of England, and it is handsome and distinct, growing to the height of 6 feet or more. All the abutilons can be raised from seed in a hot-bed in spring, but the last-named species should not be

planted out until the following year in May.

Another member of the great mallow family (Malvacez), Hibiscus sinensis, is still more magnificent, with flowers in the richest carmine, apricot, pink, crimson, &c., about 7 inches across, and of most elegant shape. These plants need more warmth than the abutilons, especially if they are to blossom in winter; but in a minimum temperature of $\zeta \zeta^{\circ}$ they will open their splendid blossoms all through the year, even small plants being extremely floriferous. Hibiscus sinensis lutea is in rich apricot, with a deep crimson star in the centre, and is most beautiful, but not so free flowering. These plants, coming as they do from India and the warmer parts of China, should have warmth all the year round, with constant attention to the danger of blights, which may make the buds drop. Syringing with warm water, sponging, and vaporising will, however, keep these enemies at bay, and the plants should be repotted in February or March, giving them a rich ordinary compost.

Another uncommon and beautiful plant is the crimson bottle-brush of Australia (Callistemon speciosus), which blooms with warmth at the same time it is accustomed to do so in Australia, i.e., in the middle of our winter. The brilliant carmine bottle-brushes, dipped in gold dust, which it produces at the points of the shoots, are very decorative, especially so when the plant is a small one. This shrub

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needs a peaty compost and an abundance of water; it is almost hardy, but as its blossoms are produced at the wrong time of the year for our climate, it should be grown under glass in winter, placing the pot in a sunny position in the garden for the summer months, and supplying the plant with plenty of water.

It can be potted on in the spring directly after blooming; the roots, however, must not be much interfered with, but should be treated in the same way as those of azaleas, giving them a shift into a slightly larger pot, with fine peat and loam tightly packed between the roots and the pot, taking care to leave ample room for watering purposes on the surface.

Azaleas, both of the Indian (A. indica) varieties and those from Japan (A. mollis), are well known. The latter group is quite hardy, but all azaleas need much water throughout the year, and constant syringing in summer, to prevent the attacks of their special enemy, thrips, which quickly destroy their foliage if allowed to do so. Azalea mollis is, however, deciduous, and can be kept fairly dry after its leaves have dropped until the swelling buds denote renewed growth; neither species should, however, be placed over hot-water pipes.

Rhododendrons, which are equally beautiful, are not nearly so often seen under glass, yet there are many dwarf varieties suitable for a cool greenhouse, as well as the lovely hothouse rhododendrons from Java and their hybrids, which flower at this season. The Nobleanum group of hardy rhododendrons do well in pots, being dwarf and floriferous; the blossoms are in brilliant red as well as in rose colour. R. ochroleucum produces yellow blossoms, and R. caucasicum album is in white. They require a peaty compost and the same treatment as azaleas, being, in fact, closely allied to The rhododendrons from Java, and the hybrids of which they have been the parents, are more delicate, and these should be kept under glass all the year round, giving them a minimum temperature of 60° in winter. Their blossoms are exquisitely beautiful, in various shades of

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salmon-pink, apricot, yellow, white, and scarlet; Ophelia, Souvenir de J. H. Mangles, Virgil, Princess Alexandra, Primrose, and Triumphans (in crimson-scarlet) being a good selection of these plants, most of these being hybrids raised

by Mr. J. Veitch.

Sparmannia africana, a tree from South Africa, will blossom throughout the winter, even when quite small, needing only to be kept free from frost, and liberally supplied with water and liquid manure. This plant, which makes rapid growth and has strong roots, should receive a shift into a pot 4 inches broader across the top than the last in April, and as soon as frosts are over should stand in the full sunshine in the open air until October, when it will again begin to open its buds. It is at all times a thirsty plant, and should have rich soil, with plenty of water daily. A very beautiful shrub is Mackaya Bella, a native of Natal, with terminal racemes of elegant blossoms in delicate lavender; it is a rather tender plant, and does best when kept under glass, except in the middle of the summer, when a few weeks of sunshine and open air will help it to ripen its wood. It, too, requires a large supply of moisture and rich food.

Amongst the smaller shrubs which flower in winter, Libonia floribunda is conspicuous with a profusion of bright blossoms in scarlet and gold. This little plant should not be much pruned at any time; its form is naturally neat, and it blooms best when untouched with the knife. Cytisus racemosus, with its fragrant yellow blossoms; Tremandra ericæfolia, a beautiful little heath-like shrub from Australia; veronicas in blue, white, and crimson from New Zealand; Chironia decussata; justicias in rich pink; poinsettias, with flaming scarlet bracts; Boronia megastigma, and many other beautiful winter-flowering shrubs, might be added here, and a few words on their general management may be useful. The beauty of all these plants will depend largely on the care they have received during the summer months, and as a general rule they should be kept under glass (after flowering) until all danger from

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frost is over, pruned, repotted as soon as they produce small shoots, and shifted on as they require more room, each variety with its appropriate compost and a regular supply of water. Many of them need fresh air and strong sunshine to ripen their growths in July and August, whilst others must be kept under glass during this process. Fine blossoms cannot be produced on green, sappy growths, and therefore this point needs attention. When artificial warmth is begun it must be gradually increased (for sudden changes of temperature will not be beneficial), and water—whether for the roots or for syringing—should always be used in a tepid, if not a lukewarm state, increasing its warmth according to that of the atmosphere in which the plants are growing.



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LYGODIUM JAPONICUM

This elegant fern climbs over a wire balloon very quickly in the summer, when it can be used in the room. It is deciduous, and should be repotted in the early spring.

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LYGODIUM JAPONICUM.

CHAPTER XLVI

SECOND WEEK IN DECEMBER

ONG before flowers appeared upon the earth the beautiful greenery of ferns and lycopods clothed its barrenness, and still we have their impressions in fossils and coal to prove the fact. There were giants in those days, too, amongst the filices or fern tribe; for some of these plants have been thus discovered which measured upwards of 90 feet, extending to the breadth of 30 feet. But these gigantic specimens have long disappeared, and are as distinct as the ichthyosaurus, which probably disported itself merrily amongst these enormous fronds; and we now have a race of smaller but most beautiful specimens, although the tree ferns of Australia and New Zealand still reach the height of 50 feet.

Ferns are yet to be found all over the habitable globe, however, and it is a curious fact that they will grow even within the Arctic Circle, although they are most abundant in the warm, moist tropical regions, many of them having a remarkably wide distribution. Osmunda regalis, for instance, our British Royal fern, may be found in abundance on the Nilgiri Hills and other mountainous districts of India, and the only maidenhair fern which is indigenous in our islands (i.e., Adiantum capillus-veneris) grows also in many

countries, in Asia as well as in Europe and America.

As a rule all ferns rejoice in a moist equable atmosphere, without sharp draughts or burning dryness; but fortunately there are many that can be well grown in a greenhouse, whilst some will thrive, with proper care, even in a room, although special precautions are then necessary for them.

Without their rich verdure and graceful fronds the flowers in a greenhouse lose much of their beauty, and it is only possible to give to dainty blossoms their most perfect setting where there are plenty of well-grown ferns to arrange amongst them.

Adiantums (maidenhairs) of many kinds are the most popular favourites amongst the ferns; but they are not by any means the easiest to grow, unless the moist air of a fernery be available, for their delicate lace-like fronds refuse to unfold themselves in a hot dry atmosphere, and often shrivel away in a warm room. But there are a few adiantums which are not so fragile as the rest, and these should be chosen for a greenhouse. A. fragrantissimum, with large graceful fronds; A. cuneatum, the ordinary maidenhair fern sold so largely in our streets; and A. Williamsi, a native of the higher elevations of the Peruvian mountains, which is of a specially robust constitution, being amongst them. A. pedatum, the Canadian maidenhair, is, of course, hardy in a sense; for it survives the long severe winters of the northern parts of America without difficulty. But it will not flourish in England without glass, as it misses the snug covering of snow to which it is accustomed, and dies for want of it if planted in the garden. For a cold porch or greenhouse, however, it is very useful; and A. formosum, an Australian fern of great beauty, is much more easily cultivated than the ordinary maidenhair, reaching the height of 30 inches in a warm moist atmosphere, although it will grow without much warmth even in a room.

The Davallias (hare's-foot ferns) are very distinct; D. bullata is the variety which is so much used for fern balls, &c., by the Japanese, who have a special aptitude for constructing miniature floral arrangements, for which we, perhaps, lack the necessary patience. This davallia is smaller than that of the Canary Islands (D. canariense), but otherwise very similar; the rhyzomes it produces are bound to the wire design, which is stuffed with moss soaked in some chemical manure, and if the whole be kept constantly damp the device will last for several years. Both of these davallias

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are deciduous, and should be kept rather dry while dormant, but must never be absolutely without water.

Cyrtomium falcatum (which has the popular name of the holly fern, although this title is more correctly given to Polystichum lonchitis) has thick shining fronds, which are very handsome and distinct. This plant needs constant syringing or sponging during the summer, as it otherwise becomes a prey to thrips, which soon spoil its beauty; but in the winter it stands well in a room, being almost dormant at that time, although evergreen. It is a native of Japan, and is fairly hardy; its variety, with drooping fronds (C. falcatum pendulum), being specially elegant. Then the aspleniums, many in number, provide us with the favourite room fern A. bulbiferum, with tiny ferns springing from the pores on its fertile fronds, which hang down from the weight of their progeny, whilst the more finely-cut barren fronds stand erect and handsome. A very different asplenium is the bird'snest fern (A. nidus), a singular plant from Mauritius, India, &c., which has undivided fronds, something like those of the hart's-tongue fern (scolopendrium), but shorter in length, rising from the centre symmetrically, so as to form a hollow basket; this fern needs a thoroughly saturated atmosphere, but it requires but little soil (a compost of peat, sand, charcoal, and sphagnum moss suiting it best), as it obtains much nourishment from the aerial roots with which it covers the surface of the pot.

Again, we have a distinct asplenium in A. palmatum (syn. Hermionitis), which throws up slender dark brown stems about 8 inches high, on each of which expands a palm-like lobed frond, elegantly fringed. Coming from Teneriffe and the Canary Islands, it is not very delicate, and does well in an ordinary greenhouse.

The beautiful lace-ferns (cheilanthes), as a rule, do better in a greenhouse than in the close moisture of a hothouse; for their delicate fronds must never be syringed or watered from above; they also require a porous compost, in which there is a mixture of charcoal in small lumps, with fibrous peat and sand, also an abundance of light and a certain

amount of air. They are, as a rule, natives of the upper ridges of the Andes, and may also be found on the Nilgiris and in Java. Cheilanthes elegans (syn. myriophylla) is one of the best for the greenhouse, with exquisitely delicate fronds about 6 inches in length; these fronds must not be allowed to touch other things, or they will shrivel away. thing happens when many of the more tender ferns are too much crowded, notably those which are covered with yellow or white powder, giving them the title of gold or silver ferns; for if this powder, delicate as that on the butterfly's wing, should be accidentally displaced, that part of the frond which has lost its protection will quickly die away. Many of the gold and silver ferns need greater warmth than is usually to be found in a greenhouse, but there are a few which will do well without more heat than a minimum temperature of 500; some of the gymnogrammas being specially manageable, and also very beautiful. Gymnogramma chrysophylla grandiceps has tasselled fronds, and G. tartarea ochracea is one of the most hardy of these gold ferns, which reproduces itself freely from spores, and can even be grown in a room, for it enjoys a rather dry atmosphere, with plenty of light and also of air, without a sharp draught, however.

The silver fern, G. tartarea, is equally amenable, and the exquisitely cut fronds of G. schyzophylla gloriosa, one of the loveliest of all, can be grown with it in the greenhouse, although it is scarcely a desirable fern for a room, as it is a veritable touch-me-not plant, its lace-like fronds shrivelling with the slightest injury. These charming ferns do well if allowed a position in a warm greenhouse separate from other plants, with plenty of elbow room, so to speak; a board covered with ashes (which should always be kept moist, as well as the soil in the pots) should be placed on the stage over the hot-water pipes, and no syringing must reach their fronds at any time. G. schyzophylla gloriosa produces young plants on the tips of its long fronds, and these can be pegged down into small pots of peat, chopped sphagnum moss, sand, and charcoal, when they will quickly

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root themselves into the soil, and make pretty little specimens. A shallow box or tray of the same compost can be placed on the board to receive the spores from a full-grown frond of G. ochracea, when plenty of tiny gold ferns will be the result. These should be potted up separately, each in a thumb-pot, giving them more room as they require it, with firm potting in a compost of peat, oak-leaf mould, sphagnum, charcoal dust, and silver sand. They require more water at the roots than most ferns, and this should always be tepid and lukewarm.

Lygodium japonicum is a graceful deciduous climbing fern for the greenhouse, and Lygodium scandens is the name of a fine evergreen climbing fern which is so nearly hardy that it will grow in a glass porch or greenhouse, if only the frost be excluded. Both are uncommon, and their trails of long fronds are specially useful for table decora-

tions, as well as in the conservatory.

Amongst the hardiest of our room ferns, the pterises are pre-eminent; P. tremula being especially graceful as well as robust. The tasselled forms of Pteris serrulata and the silvery striped fronds of P. cretica alba-lineata are also very popular for the decoration of the house. P. argyrea is very handsome, but not quite so robust as the other varieties above mentioned.

No room ferns should, however, be subjected to a dry heated atmosphere at night, and it is desirable to remove them before lights are lit, to the shelter of the greenhouse, or another cool place with moistened air.



THIRD WEEK IN DECEMBER

ANTHERICUM VARIEGATUM

An excellent furnishing plant, as it will thrive in a room, and will even stand a little gas. The young plantlets are produced on the flowering stems, without soil or sowing.







ANTHERICUM VARIEGATUM.

CHAPTER XLVII

THIRD WEEK IN DECEMBER

THE summer flowers are over, and at this time of year furnishing plants are more than ever needed, as our cut flowers become scarce.

Very tempting are the winter heaths (Erica hyemalis), cyclamen, and other flowers which are now sold by hundreds in our streets; but without knowledge of their special needs it is not easy to keep them in good health, and a drooping or dying plant is far worse than none. Where gas is burned it is not possible to induce blossoms to open, for the sulphurous fumes of this light are very injurious; but even in this case it may be possible to find a safe shelter for a heath or a delicate fern in the greenhouse, or in the moist atmosphere of a bathroom, in which the hot water can be turned on for a few minutes to soften the air when the plants are placed in it; doing this before the gas is lit, and allowing them to stay in the bathroom until the sitting-rooms are thoroughly aired in the morning.

Plants which have been forced into early bloom seldom do well in a room, where the dry air is very trying to them, to say nothing of the chilling draughts of the early morning, when doors and windows are necessarily left open whilst the rooms are brushed out. It is difficult for those who come down (an hour or two later) to a warm room with a cheerful fire to realise the arctic temperature which reigned there at seven o'clock; but many a cherished plant droops and dies from this little suspected cause alone. Where a night refuge cannot be found for our plants in a greenhouse or a bathroom, the best substitute for it is

IN MY LADY'S GARDEN

a rough box (such as can be easily selected at the grocer's) placed on the floor in the kitchen or any other warm room. This box should be deep enough to hold the plants without injury to the tips of their shoots, and 2 or 3 inches of fine coal ashes (which must always be kept moist) can be laid at the bottom, on which the pots should rest. A piece or two of glass will cover the whole, allowing a little air to escape at the corners; and in this safe retreat the plants will be refreshed by the moistened atmosphere, and at the same time free from frost and from all rapid changes of temperature and bitter blasts during the early morning. But, fortunately, there are some hardier plants which will manage to survive even these trials, and most of our furnishing plants should be selected from amongst these if we wish to avoid disappointment and disaster.

Aspidistra lurida variegata, sometimes called the Parlour Palm, the most long-suffering of all our room plants, will bear almost anything (including want of water or a constant deluge) at least for a time. This plant should not often be repotted, and requires poor soil, or it will lose its white stripes. Amongst smaller furnishing plants there are few which are so easily managed as Anthericum variegatum, which possesses curious glass-like enlargements of its roots, enabling it to survive when very short of water, and it is hardy enough to bear a little frost, whilst its foliage does not suffer so much as that of most plants in dry, hot air.

The anthericums (which belong to the order liliaceæ) all have white starry flowers, but St. Bruno's lily (A. liliastrum) and St. Bernard's lily (A. liliago) are fairly hardy garden plants of great beauty; whilst A. variegatum is most decorative in the conservatory, the cool porch, or the room. The tiny white stars which it produces on its long flower spikes, have the singular property of growing from flowers to seeds, and from these into plantlets, without reaching the soil; it therefore makes a desirable basket plant, and is easily propagated by cutting off a spray of these little plants and pegging them down into a box of light soil; when every one of them will quickly throw

THIRD WEEK IN DECEMBER

out rootlets, and can then be potted up separately. Each bright green leaf is broadly edged with white, and the growth of the plant is most elegant. Aralia japonica (often, though erroneously, called the castor-oil plant) is hardy enough to grow in the open air in Devonshire, where it expands into a large shrub. This plant is nearly related to the ivy, and its thick leather-like leaves will resist the effects of gas if kept clean by occasional sponging with tepid water; and the same may be said of the indiarubber plant (Ficus elasticus), but this is not nearly so hardy as the aralia, requiring a warm room and immunity from sharp draughts to do well, with careful watering, too, according to its needs.

Too many of us leave the watering of our room plants to the hands of a busy servant, who naturally has no time to examine the state of the soil, which she deluges with cold water regularly every morning, or perhaps gives each plant a driblet of water once a week, summer and winter alike; with a fine disregard to the nature and needs of each individual plant. This treatment naturally results in the destruction of the roots and the death of the plant; and it cannot be too clearly understood that hard and-fast-times and plans of watering cannot possibly suit all plants alike, for one is growing rapidly (needing much moisture), whilst another is dormant and prefers to be kept fairly dry; the position of the plant with regard to the fire or the sunshine, the size of its pot, the nature of its soil, and the amount and strength of its roots all being modifying conditions which need consideration before we wield the watering can. But the general rule is this: to give tepid water in the morning (during the winter) only to such plants as have dry surface soil and which will not stain the finger laid on it; supplying enough water each time to reach the lower roots and run through the pot; for the driblet system naturally results in rotting the upper roots, whilst those below are starved to death. But few plants (except arum lilies, hyacinths, and other bulbs, cytisus, reeds, and azaleas in full bloom, with a few others) enjoy standing in stagnant water

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for more than half an hour; and therefore it is well to empty their saucers at the end of that time, and allow the soil in the pots to become almost dry before giving more water. But some of them may need a daily supply (always warm), others requiring water less often; so that it should be the rule to go round them every morning after breakfast

to ascertain and supply their wants.

Cyperus natalensis is decidedly finer in every way than the more common Cyperus alternifolius (often called the umbrella plant), though it requires rather more warmth, as it comes from tropical South Africa. The cyperacese are all water plants—reeds, in fact—and should be allowed an abundance of moisture; they may stand in a saucer with impunity, for any want of water will injure them far more than a superabundance of it; they can be divided and repotted soon after their flowering umbels become faded, and they may also be raised from seed in a moist, warm place. As room plants, too, they are decidedly decorative, and although they prefer the atmosphere of a warm greenhouse (with a certain amount of shade and moisture) to that of a room when in growth, at this time of year they will stand well in a bowl if well supplied with tepid water. There are several varieties of C. alternifolius—one with variegated foliage—and all are pretty and effective; but the cyperus of Natal is far finer than any of them, reaching the height of 30 inches; although it is not so often seen as it should be.

There are also a few palms which are hardy enough for a room, such as Latania Borbonica, Phœnix Dactylifera (the Date-palm), the Fan palms (Chamærops elata and C. humilis), and the cabbage palm (Corypha Australis); the beautiful Seaforthia elegans and the Kentias (Belmoreana and Fosteriana) are not quite so hardy, though they will stand in most sitting-rooms; and there are various other palms (such as Cocos weddelliana) which need a warm conservatory in winter. Unfortunately, to most of us a palm is simply a palm, and one variety difficult to distinguish from another; it is therefore necessary, in

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purchasing them, to go to a reliable source, and to state the position which the palm is to occupy. The summer is the best time to buy these plants, as they then become gradually inured to the atmosphere of a house, which is, naturally, very different from that of the hothouses in which they are quickly grown for sale. The Dragon-tree of the east (Dracæna indivisa) is fairly hardy, and, like the palms, will do well without much sunshine, or even direct light. Then the graceful silky oak of Australia (Grevillea robusta) is also nearly hardy, but it needs more sunshine and air than those plants before mentioned, and has a very decided objection to smoking, dropping its leaves rapidly if exposed to a tobacco-laden air. Its leaves, so finely divided as to resemble the fronds of a fern, are not so easy to keep clean either; and the health of all room plants is quickly affected when their pores are choked with dust. A thorough weekly washing from a syringe with lukewarm water will suit a Grevillea; whilst the larger-leaved plants should be sponged with warm water, and, if insects are to be seen, Sunlight soap. The special blight which attacks palms is that most persistent enemy, white scale, and nothing but constant sponging will eradicate it unless the plant can be sprayed from a small scent-vaporiser with methylated spirits, which effectually destroys all blights.

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FOURTH WEEK IN DECEMBER

CHRISTMAS ROSES

These are amongst the best of flowers for winter decorations, being available from November until March in the garden.

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CHRISTMAS ROSES.

CHAPTER XLVIII

FOURTH WEEK IN DECEMBER

HRISTMAS is here, and family gatherings are everywhere taking place, with much joy to the children, and many bon-bons. But for these festivities it is not always easy to keep up the supply of cut flowers for table decoration, and the bulbs which are so easily cultivated for winter (as before explained) I are now invaluable.

We do not need elaborate decorations for home gatherings, yet the table must be made to look bright and tasteful; whilst holly, suitable enough for Christmas Day, cannot be considered all that is necessary. Scarlet tulips (Van Thols) are already opening their buds, however, and Roman hyacinths—far more elegant than the splendid, but rather stiff, blossoms of the larger hyacinths—are some of the best flowers we have for filling small china bowls or any quaint receptacle which may be at hand. They only need to be carefully raised from the boxes of light soil in which they are grown (in the greenhouse, or even in a window) just as their buds are opening, and packed into the china with a little fresh moss, some tepid water, and perhaps a few fronds of small ferns. If not exposed to the fumes of gas they will last for weeks, and it is easy to vary their effect with different table-centres, or leaves, bunches of berries, &c., laid flat on the tablecloth in a star-like pattern from the centre, holly and ivy being very effectively used in this way.

Christmas roses (Helleborus niger) are excellent flowers for cutting just now, for they last well in water for two or

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three weeks. Large plants, which have become well established, will produce hundreds of blooms, if well cultivated, and it is a far better plan to cover them with a hand-light during their flowering time than to pot them up, for they resent any disturbance of their roots, and often take years to recover it. They are quite hardy, and will not be seriously injured if left uncovered, but the purity of their blossoms is apt to be destroyed by the heavy storms of winter. Where hand-glasses are not used it is desirable to cover the surrounding soil with clean moss, to prevent the rain from dashing it against the flowers. Christmas roses are hungry plants, requiring two mulches of rich soil during the year. They make their leaf-growth during the summer, and it is necessary to support them well at that time, as the strength of the plant depends upon the crowns then in process of formation. A layer of manure placed around the plant in March will tend to keep it well nourished and moist during the warm weather, and a mulch of old hot-bed material, mixed with a little soot, will be useful to the opening buds in the autumn, the soot checking the inroads of slugs.

Hellebores strongly object to be disturbed, and should not be moved more often than necessary; they need several seasons to settle themselves before their full beauty is seen, and then increase rapidly, sometimes producing a hundred flowers on one clump. A well-drained position in a half-shaded spot (not, however, where the soil is exhausted by the roots of trees or shrubs) will suit them, and it should be well trenched and manured a few weeks before the plants are put in; the proper season for transplanting Christmas roses being July (when they are at rest, having finished their leaf growth for the year), and single crowns usually do better than a clump, so that the roots should then be divided. By means of selecting several varieties, these flowers can be obtained all through the winter months.

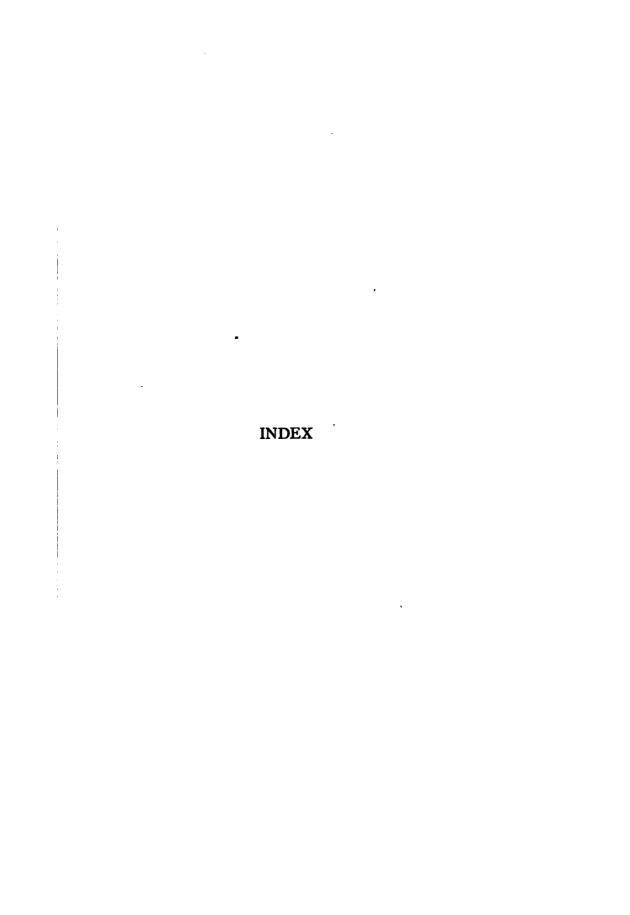
For the decoration of the house at Christmas-time, the beautiful epacrises, from Australia, are now most useful. They are often, though erroneously, called heaths, but they

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do not even belong to the same order as the ericas, although their blossoms and growth are very similar, and they can be cultivated on the same lines, needing a compost of peat and loam, an ample supply of water whilst in growth, enough to prevent them from drooping at all times, and plenty of fresh air with but a slight amount of fire heat. Then there is the Chinese primrose (Primula sinensis), with its delicate fragrance like that of our own favourite flower the yellow primrose, and a most desirable habit of throwing up many sprays of blossom, which continue to open their buds throughout the winter.

For a sunny window the varieties with crimson or rich pink flowers may be chosen (always avoiding the blue-pink shade, which tends towards magenta as the bloom expands), but where there is not much direct light the white primula will be more satisfactory, as the red varieties are apt to look faded in this case. Single or semi-double, frilled or with flat petals, with fern-leaved foliage or the more ordinary round leaves, each and all are lovely in their own ways, and it is difficult to decide amongst them as to which is the best. They are, of course, at home in a warm conservatory, but they do not like the chilling damp of a cool greenhouse, for they are specially liable to the attack of mildew, which often, in a low temperature containing much moisture, seizes upon the collar of the plant (i.e., the point at which roots and stem meet), and before long the whole plant collapses, having become rotten just below the soil. For this reason it is necessary to use discretion in watering a primula, always giving it tepid water, and never allowing the plant to droop, nor yet supplying water while the surface soil is decidedly wet, so that the only safe rule is to examine this daily in the morning, and to withhold more water until it is really necessary, then giving a sufficient quantity to moisten the whole thoroughly.





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